

# 分 冊

Separate Volume

出願番号 特願2003-102206  
[ST.10/C] : [JP2003-102206]

分冊番号 4 / 9

CERTIFIED COPY OF  
PRIORITY DOCUMENT

cacatcttcc ctcttggtag aaggaaaatt aaaacaagat tagccagaag gcagaaagac 1620  
 agctaattga agaaacaaaa atatggtgaa ggggagcata ggtacaggtc acacccttct 1680  
 gatcccatcc ttctgtccct gacggcagag ggactcccaa gcttgaagca gtctgcctcc 1740  
 ccaccacccc accatggctg tgagtcgggtc ctctctgtga gtccaaatcc ctccctacca 1800  
 ctgccttcct gaaccaagat atctggctac ccagccacc ctcacctggg ctggttttta 1860  
 gacttggagt cctcatccgc caggggctga acactcttct ctgccacgtc agtcagcaca 1920  
 gagaatgtgg gctccacaat gaagtcgatg aaccctgcag tggaggagca atgccgtaga 1980  
 gatgtcttac tattatctgg agggctaggc agagcatgca gctggcatgg ccaggacccc 2040  
 tggctgctta tgaaagagga tggagaggta acctggggct gaaaacttcc caatgcaggg 2100  
 caggctttgg gatgatgtct tggtgcccca gagagctcct tcctgccatt gcagccccct 2160  
 ggcttcctaa ccagggacc catgctctag cacagtaggc ttctctctac aggaagaatg 2220  
 gtttgggggg attgaggact tggagcaatc ctgaccagg cagcatcttt tccccctccc 2280  
 agtcctcccc ttctgcagg agaggacact cacctatctg agactgtgcc actagagtgg 2340  
 aagtgcggtc acagagtgga gaaaagggca ggcccaactc tgcctccttg tcaccctaga 2400  
 ggagggaaca gggtaggaaa gctggagagg atacctcaga cctaccagat ctgggggtaca 2460  
 ggtggcaagt ggtgggggtg gggggttgtt gtgtgaaatt tctgcactgt tgacctggaa 2520  
 attagtaata tgcaaatgaa atatatgcaa atgaaatgc 2559

<210> 1244

<211> 2590

<212> DNA

<213> Homo sapiens

<400> 1244

cactgagtta ctccccgttc tctctcatgt cttcaccgcc agccctcagg gactctcctg 60  
 tttgtccccg ctactctcca accacgcca cattccagct ggagtcactt gcaggcacc 120  
 aggaattacc tacaaactca gcagttgcac tgagttactc ccagttctct ctcatgtctt 180  
 cacccccage cccctgggac tctctgtct gtcccagctc ctctcccacc acgcccagat 240

ttcagagggga gtcagcctcc cacactccgg aatcacctac agactcacag acttcacgga 300  
ggtcctccct ggtctctctc aggtctttgc cctcagccca cagggactct tgtgtctctt 360  
tcagctactc tcgaaacttc tctagattcc agctggactc agttccaggc acccacgaca 420  
caccacaaaa ctcacgaatt tctactgactt actccccagt ctctctcatg ttctcacccc 480  
cagccctcag ggactcttct gtctctctca gctactctcc agccatctcc acatcacacc 540  
tgggggtcagc ttccacacacc caggaatcac ctacaaactc acggacctta ctgcaaccct 600  
ccccatttc ttccacctct tcaccccctg ctttcaggga ctctcctgtg tctcccagct 660  
tctctccage cttccccaga tttctgccac agtcagcccc aggcaccag ggttaccctg 720  
gacttcaca ggcctcacga gactatttcc caatgacttg tatctataga gggatggctc 780  
ccatacttcc ctcagtgacc tcaaaccat ctccacttac actcagacac tcccagggcc 840  
tgacagctac tccccgttat tgctcttcag ctccaagccc tggcccatct actagccaac 900  
atgatgcagc tacctggcca tgtctccaca tttctgggga gggccccaca cccagccgca 960  
gaagagcccc tcttgcattc cgtcttcaca cacaggcctg tccatccact tgctactgtc 1020  
acctcttgc cagcagaaga ggcccctgta atggccgata tcaccgcca gtctatctc 1080  
acccacagc tgtgcagcgg gaccctcctg ctggcccacg tggtgccac agcccatgct 1140  
ggcacgacgc tccagcatgt cggcgtccct gcggggccacg ctaccgctga catggctagc 1200  
atcacctcc ttctggcag tgacactgct gatttgaacc ccagtttcac agctgtcatt 1260  
tgtaaataagg accattttcc cttttctctc tcccttccat tcacagggt tctcattccc 1320  
tctgtttctg cctccgtttc agagatttac tcacctttt ctctctcact atgtctgccg 1380  
tggtctccat aagagtgtgc cacataaaat tgccccatta aaagtcatga attgagtgga 1440  
ttttagtata cctgtggttg tgcacattca attttaattc gcaatccatt ttagaagggt 1500  
ttatcacccc cgaccagaga aacaccctgt ggacattagt cactcctcat tcttctcaaa 1560  
ccctctgcct gaccctcagc cctaggtaac aactgcatag agcgatcaac cccatatgca 1620  
tagatttcca tattgtggac atttcctata aacggaattg cacaatacgt gagcttttgt 1680  
gactgacata acacttttag cacaatatit tcaagattca tccacattgc agccttacc 1740  
acagggggaa accgcatttt ctggtttcag taacaccggg tgttttctcc ttcttccgt 1800  
cttctctcc ttcttctctt ccttctctcc ttcttctctt cctccttcc tcccttctt 1860  
cctccttcc tccattttct ctcttattcc ttctgcctc tctctttcat atgccttagg 1920  
tgcacctac gtctgcgtc tttttgggga atcctcgaca ggtgctggaa aattgtgtta 1980

ttgtaattat ttaccggtat ctctctttca tggttctcca tcagttgtaa gcatctattg 2040  
 gtttatccca ggtcactaag tatattttaa ttagctacac ctgtttttct ttatacactt 2100  
 gtttctggag tatagggtcg cataactcata aaccaggtgt aactcagaaa cgcactctaat 2160  
 attccaatag acccatcata acgttgaaaa atcataaatc aaaccaactt aagtcacgat 2220  
 ttggcgctgg atatgggctc catcaattcc attgtattca ataatgctgt acaccattaa 2280  
 caatggcaga ctgattgggc gtggatgtgg ataacattat aaaaatcagt tattagaggg 2340  
 atactttaac ctgacggaag agctgatcta atggatttag tacagtgatg attatgtgag 2400  
 atgttttgag acagagtagt acatttgtgt atgagattct gtggcttttt tcacttagta 2460  
 ggaacctttg tgtgtggaaa actgagaaaa ttgctttgtg ctgtagagtc tggcattcgt 2520  
 tgtagattaa agcttatttt tctggatgta aatcttattc aataaaatac tactctttat 2580  
 aataaaaaac 2590

<210> 1245

<211> 2232

<212> DNA

<213> Homo sapiens

<400> 1245

ctcatccgat acttatttgt tcaaggccct aggacaatat tcctgtaatg ggctgctttt 60  
 gccctgattt cctcctcaga gtaaccgtct cgcggttggg cacgatccca gatcacatct 120  
 acagtggagg tggttttgct ggggaggatc cgcatgcttg tttgtgttta tgcctgggga 180  
 acccctctt ggcaagatgt tcgggagagg ctccaaaggc agcacagagg acggcttgga 240  
 acttaggggg attcacttta tggtaaagaa gccctttcta aaggagagct ccaccagga 300  
 aacaccacc acccagcat ccttgccctc taaaaccagg ttatgtttat cacatacctt 360  
 ctatgtgctt tacataaaga atcccctgga attctccaaa ctgggcattg tggctctgtga 420  
 tgcatatctc aaaagagggtg agagggttgg gcacggtggc tcacgcctgt aatcccagca 480  
 ctttgggagg ccaaggcagg tggatcactt gaggtcagaa gctcaagacc agcctggctc 540  
 acatggtgaa acgccgtctc aactaaaaat acaaaaatta gccgggcatg atggcgggcg 600

cctgtaatcc cagctactcg ggaggctgag gcaggagaat cgcttgaacc caggaggtgg 660  
aggttgctgt gagccaagat tgcaccactg cactccagcc tgggtgacag agtgagactc 720  
tgtctcaaaa aacaaaaaaaa aagaaaaaaaa aaggtagagg agagtccttt ttctaacttt 780  
cttgaactct ttggactacc ttgggactct tctattaact gccttgttgg cattattctc 840  
agtttatgaa aaaacaggcc cacagagtgg aagtaatttg cctacaggtg catctaaaaa 900  
ttgatgaagc cagataggaa ctgctccctc atcatctgaa acccttccca gagctgtctc 960  
tccccccca gaagtagaaa gaagccaggc aaagatgcat cttgatctcc cttgtggttt 1020  
cagcaaggaa gcagatgagt tggagatgaa gccccagcc cctgggaaat tggaccact 1080  
tcttgctcca aaggctattg gggtagacac aggtgtgttt ctttcccgta gatcatattc 1140  
accatatttt gcctttaaat ggaaattgtg catcctgaag taccttgta agagtccatt 1200  
ttcaacctga aattcctttt ttttgtaaac cacttcagca aatacagtgt ggcatttaca 1260  
ttagcaacct cccagcctag gagaggatgc tccagcatcc gactctaaaa gacaaatttg 1320  
tctgggcacg gtggcttgac gcctgttata ccaacacctt gagaggccga ggcaggcaga 1380  
ttgcttgagc ccaggagttc gggaccagcc caggtaacat ggtgaacccc catctctacc 1440  
aataatacaa aaattagcca ggcatggtgg tgtgccagtg gtcccagcta cttgagtggc 1500  
tgaggtgaag gatctcctga gcctgggagg cagaggttgc ggtgagccga gatcgaacca 1560  
ctgcactcca gcttatgcaa cagagcaaga cgtgtctca aaaacaaata aaaataaaag 1620  
attttaaaaa gacaaattat ccacaaaatg gtacattgtg gtggtggtgg tgggtggtgt 1680  
ggtagacctc cctcttgctc ttgaaattgg atcagaacaa actgacaatg ctacctactt 1740  
catggggtca ttggtgaatt cactgataat gcatgcaaat ccccttctgc ctggcacact 1800  
acctaataaa taaatggtgg ttgttattgt tggaattgga ggatatattc ctagttgcaa 1860  
gggtttcaca tgtattacca agttaatcct caccgcagat atgattctgt ttacagagg 1920  
aagcagtgga tgctcagaga ggttaggtaa cgtgggtcag ggacacacag ccaggaaggg 1980  
gcagaggctg ggagtgcctg actccaaatt catgcaattt ctacccacc atcttctccc 2040  
caaggaaaaat agtcctaata gcatgtgtgc aatgcttaga gggcagtaga tgctcaacag 2100  
atgctgagag agtgaggag taaatgagat atgcatgaa aaggagcccc tgtggactta 2160  
tgcgtgcgtt tgtttaactt gtgggcaagt acttatagac aggtgcaaac aataaatctc 2220  
cttttgcaac tg 2232

&lt;210&gt; 1246

&lt;211&gt; 2419

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 1246

agtcgggttg	gggcggagcg	gaggggaggc	cgtgccaggc	agggccggtt	cgtgcggaac	60
cgccatggcc	gagccggctt	cggtaagaag	ggccggtgga	ggatgcaggc	tctgtcgaaa	120
ctcgggtccc	tgtcgcagct	ggattggggg	ccgcgtccag	ggagtggggc	ggccggggcc	180
tgggcctggg	ggttggcagt	ggccccacgga	ctgagctccg	ggctgggctg	gagaaggtgc	240
agtcttgctg	cgtgtgctgt	tctggaattg	acctggggaa	aagctggtct	ggccgggctt	300
ggccgcgcgc	gtctgtggcc	ccggccactc	ggaaggctga	ggcgggagca	gcgcttgagc	360
ccgggagctc	tgcgctgtat	atgcgctagg	tccgtcgcgc	ggtgcctctg	agttctgcat	420
ctgtgtggtg	acctctcggg	agcggggacc	accaggttcc	ccagggaggg	ggaaccggcc	480
cagctcggaa	accgagcagg	gcaaaacccc	agtgctgata	gtagtgagg	tcgcgcctgt	540
gaatagccac	tgccctccaa	cctgggcaac	agccagaccc	cgtctgttta	atacataaat	600
aaaagttggt	ttgggagaaa	gaatccgggt	gggaaagatc	tgtttctcgg	cctgtttag	660
gctcagatca	acaacgctgt	ccctgccttc	agtgtcgggg	ctctgaacct	cggggtctct	720
ctggggcccc	tgctctcctg	ctgaaggtag	tttcagagaa	gcacatcagt	gttaagcaga	780
tgagaaaaag	gagaaggaaa	gctggaactg	agagaaattg	gagaccgctc	cctctaggaa	840
aggacagaaa	acttaaaatg	aattgggtgg	ttagcgtaaa	tcgaatttac	cgtaaagtct	900
gtagtattgt	aatgtagtat	tgaaaatttg	agcaccggtt	ttagagtttg	aaaggcgtat	960
cctgaggctt	aatccaagaa	accctgttac	attcagttaa	gtataacttg	cttaagtgtg	1020
caagtttttc	ttgtgcccc	aatgaaattt	tataatctta	ggaatgtaat	gctccttatt	1080
tgcatttgat	tcttcccttt	tgcctccac	tccttttccc	cagcctcctt	tggcaggtac	1140
agattctttt	ctgatttctc	caagctttgt	ttctacagcc	aggctttctt	ttttctctc	1200
ctctttaagt	gattgggaat	ctcctggaat	attcctctct	gttctgggaa	agtttgtggt	1260
agctcttctt	tgtacattga	atttatagaa	aatgtggtaa	cagtttactg	gctaattgtat	1320

tatttgggat aggcaaggaa aaatcgTTTT cttgattttc ctttccactg tagcagttta 1380  
atgctaattg taaatgtggt cataaatggg aattttatag gtggaaaaca catgggtggc 1440  
cgggcgtggt ggctcacgcc agtaatccca gcactttggg aggctgaggc gggcggatca 1500  
cctgaggctcg ggagttcgag accagcctga ccaacatgga gaaagcccgt ctctacaaaa 1560  
aatacaaaat tagcctggca tgggtggtgca tgcctgtaat ctcagctact ggggaggctg 1620  
aggcaagaga atcgcttgaa cccaggaggc agagggtgaa gtgagccgag atcgtgccat 1680  
tgcactccag cctgggcaac aagagcgaaa ctccgtctca aaaacaaaac caacaacaac 1740  
aacaacaaca aaaaaatatg ggtgaggtac aataaaaactg tagaggaatt tggttgaaat 1800  
cacattgtaa aaataacaag gccatccgga cgtggtggct tacgcctgta atcccagcac 1860  
tttgggtggc caagacgggc ggatcatgag gtcaggagat cgagaccatc ctggctaaca 1920  
cggtgaaact ccctctctac taaaattaca aaaaattagc cgggcgtggt ggcggggggcc 1980  
tgtagtccca gctacttggg aggctgaggc aggagaacgg cgtgaaccgc gaaggtggag 2040  
cttgcagtga gccaagatca cgccactgca ctccagcctg ggcgacagag gggactccat 2100  
ctcaaaaata aataaataaa tagcaaggcc aggccaggcg tggtagtca ggcctgtaat 2160  
cccagcactt tgggaggccg agccgggcgg atcacgaggt caggagatca agaccatcct 2220  
ggctaacacg gtgaaacccc gtctctacta aaaagacaaa aaattagccg ggtgtggtgg 2280  
tgggcgcctg tagtcccagc tactcgggag gctgagtcag gagaatggcg tgaaccggg 2340  
aggcggagct tgcagtgagc cgagatggca tcaactgctc ccagtctggg cgaaagagcg 2400  
agactccgtc tcaaaaagg 2419

<210> 1247

<211> 2071

<212> DNA

<213> Homo sapiens

<400> 1247

cattatTTTT ttcttctgct ttccattaac ctaactcacc tcacagtcac aaccattttc 60  
ttattctcta actaccccca attccttttag cctctcccca cctgtccaaa ctcagctcag 120

ccgtgggccca atgcagctta cagacggttg cagagctagg aagaaaaccc agctctccca 180  
accctgatcg tggaggtctc tggcccccca acactgcctt ctgggggctg cttttttttt 240  
tttttttttg agaagaggtc ttttgggatg catggtgctc cacatacagc ttcacaaaat 300  
atttcattat aagagaaacc ctttgatttt tttttctttt tcttttgttt tctggattac 360  
ctgccttcag taagcagatg cagaccact tgtaaggagt ctggttagtg atgagaaaag 420  
gatgaaatct agatacaaaa gtcaccttga aggtgatgat ggatcttta tccacttgac 480  
taagtgtctg gaagagctac ttgctcttcc acccctcatc tcaaatagaga ggagcagaag 540  
tttaacttcc tcaaatagcc cagctctggc taaaacccaa agaagaaagg tcaaaggaag 600  
ggaaagcatg tcaggggctg gtttgtgact tggcaggacc aggaaacagc agccactgac 660  
agcccagaga aggtgactaa gggctggcag aagattagaa tgtaatttg gctgctgtcc 720  
ggactaggag gccatgttca atggcagtc gaatttgtgt tctgcgcatt gctgggtcta 780  
taaataatgat aagcaagtgg tgacagaatt atagtataag gtgatgtact acatgcagat 840  
cataaaggct ttggttttaa gacttaagta gaaaatccct ctctagctt attaccaac 900  
aatattcaga taatgagctt ttggagaata tctttttcct atcactagaa agatttacct 960  
gggaactgtc taaagtctac acacatattt ccaaagcctt taaataccaa ctgcagcatg 1020  
gagagagagg ggtggcagaa gctgaaatgc ctcaaaagcc atttaagtgt tacgttgcag 1080  
gattttcagt cttctcgtt atgtaaaagt agataaatat agacgttatt ctcaacacta 1140  
ccctatagta tcacagtggc ccaaagccca gagcttacag ataatgtcat cacagtgcct 1200  
agaaactcga actgtaatat atcgtagcat tttcttgggt tttcttaaag tttctttcca 1260  
caatacaagg tcctctctgc ctcttgtttc ttggagagtt caccctactg atgagtcttc 1320  
cttccctgtt ggactcagtc atttggggaa cagtcttaga agcacatata aaccaaggaa 1380  
gaaacttcct ggatatctat tgcccacttg cccaggctca ataaacacta aaggggggaa 1440  
attgaaagga gctgccaact ggtcaacgtg gaagggcggt tccaccctag attggtgtct 1500  
ttctttttct tccttttttt taaaaaaaat ctatttctta aataataata aatgcacatg 1560  
atgtgttaaa tatgtacata tatatttcaa aagaaaaaat ggggcacaag attgtcttac 1620  
aagtcgtgct ggctaatttt tagtttgtat tcataagtgg tttttaaaag ctttttttaa 1680  
agtgtaatth gcatgttcta ctttgattgt atgtaaacat attttagaac aaaaaatgta 1740  
tttgtatttt attgaatata gaggcaagaa aattgtacat tgtttgaaat gttctttttg 1800  
taacagtttt tattcataaa gcatttttgt acatttaaaa tgaacatgga cttgctgtta 1860

tttgaggcgt agatacatct agcatgctta ctgtcatgct cctccatggt cttagatggt 1920  
 gggtttttaa catttttttc taaaagaaag ctcagtcttt tccgctacca gatcagggtta 1980  
 gcacagtata gagcacttaa ctaaaaaaaaa aaaagttaat cctattcata tgttattcat 2040  
 tgtgtgaaat taaagacatt caattcagtc t 2071

<210> 1248

<211> 2070

<212> DNA

<213> Homo sapiens

<400> 1248

acaagagctc ggccaggcgg ccccgcgggg tggctcgtggc catgacagcg gctccagacg 60  
 gctccccctc cacgcccttc ccgccggaga tgaggggaag atgtctgtgt caagattcaa 120  
 ggccaaactg aagttgctgg cgtctatctt ccacgagaac caggaggctc agctgcggct 180  
 cacgctccac tgcaacatga gaatgggaca acagaagaag tgacttcaga ggaagaggaa 240  
 gaagaggaga tggctgaaca gcagccgaat tctcttaagt ggagggatcg cataggtgtc 300  
 ctggagctcc accatgtctc tcacaggaat gcaccaagag aagagaatct ccagcaggag 360  
 gcccagaggt ggaagaggca gggatgcgaa gaagcagagg aggctggaag gaaccgggcg 420  
 agaagtgggg acagcgggag tgtaagttag agccagttag gccgctcacg cagggcaccc 480  
 ggccagatcc aaccaagatg gtgtcctgga tatggtggaa gaagatgttc tctgggatgc 540  
 agagatttcc ctgaacaagt ccatcacaga gagcaggaga gtctggcctc ttcagatgtg 600  
 agccatcatt aagttcaaat tctactccacc atccatgcaa actgtgagag ctgctccatg 660  
 gtgccc aaat cagcacattc agctagaatc tctgtaagtg ctctcacatg gatgggggtca 720  
 gccttattca gtgttgaatt ctgtgctctg tgggtgtaatg ttcttaggat tcatgcacta 780  
 catttaccba tgtttcttgt actttgaatt gtgtcactgg agaagctgtc tgattctctg 840  
 aacatgacgc aagccttgct gtcaccacca ccgtgaaggt cagatacagc acccaaggcc 900  
 cttgcgcctc tgccaccgct gtgagaagta catatcctgg ccagcctgct gactcaggag 960  
 gttgagaatc aggtgcagca gaccagagca ctgcttcagt gtcagggtag agctgctcca 1020

tgaccagag attcatagca aaacaggtaa atgtattacc tgcttcaaac tgatggatgg 1080  
acagacagaa agagcagcaa accaacaagc ctccagctct caggcctctc acctctggcc 1140  
ttgcattttc ttaagtgtgg gtcagcgtaa taaggaaaac agacaaaaat acaggagatg 1200  
gagttttgct ctgtcaccca ggctggaggg caatgacacc accatagctc actggagcct 1260  
ggagctcctg ggctcacatg atcctccac ctcagcctcc caggtagctg ggactacagc 1320  
cacacaccac tgtgggtggc tcacagggtg tgtcaggact gaagtgaact cactgtagga 1380  
cgcccagctg gtttccaaga attggtcgat gtgggagaaa cgccccgctt tgggtgcaga 1440  
agtgttgtct ctgagtaaat tatggagact actgcaaaat tcaataaatg ctgcgaccgg 1500  
aaaggacagt ggaaaatccc aaacttttaa agcttgccca ggaataggaa agctttcttc 1560  
caggcggtaa gtctcatggc ttaccacta ggtcccatc tccattgggg atatagccac 1620  
tgatatctgc ctctgcac tgcagatcca aggaccagcc tccgtaagac caggacccaa 1680  
acttgtttgc agtgctgcac atcaaaggga aaccagcgta catcgatgta gcaggaactc 1740  
ttgaatatgc ctgtgtgggt gatggaaaca gaagactgaa acggaagctg actgagatgt 1800  
gctgaaaata cacagcagtt ccttcagccg gttccgccct ccgactgca gctaacacag 1860  
tccagagcaa acggaatctg tctttttatt tattcgcaa atctgtaaaa cagaatctca 1920  
gctaagcttc actgtctttt aaaatccaaa cgtaacactg acatgctctc tcaaagactg 1980  
ttttgtgggc tttttgtgca aaaagttagc tctataatct gcatttacca tgagcatctt 2040  
cagactctaa ataataaaag taaagaatgc 2070

<210> 1249

<211> 1924

<212> DNA

<213> Homo sapiens

<400> 1249

gaattactgg gttatatcta ttaaataaag ctttatgac tttgctcttt ttttttcct 60  
gattataaaa atacatgcta ggaccaggca cggtagtcca cgcctgtaat cccggcacta 120  
tgggaggctg aggcggtgg atcccttgag ccctggagtt cgagaccagc ctgggcaaca 180

tggtgaaatc gctacaaaaa aatttttaaaa attagctgag tgtggtggca tgcacctgtg 240  
gtcccagctg cttggaaggc tgaggctgca gcgagccaag atcccaccac tgcactccag 300  
ctggggcaac agagtgagat gctgtctcaa aaacaaaagc gaattctcta actcagtgat 360  
tttgaacact tctggctcat gatccacagt gagaaacca ttttccgtca ttgaacttga 420  
gtgtgcatac gtgcatacac acacttagtg caccaacact taaaccttta ctgcattttt 480  
aaattccacc tctttaaatc tatttcattt tttttaagcc aatctcactt cacgatgagt 540  
caggatctgc agtgtgaaag ccgtggtttg aatccctcta agctgtagct catcacaccc 600  
ccttctgagc aggacctgcc cccagctcca ggaagggggc ttgcccagtg ttcagcaaag 660  
acagaggcca ggggtgggacg catatcagga aacgctttgg tgcagaagca cctctgtctg 720  
agctacctgc atttaaggag gtgctggcca cgaagagaca tggggcagcc cttggtaaaa 780  
tgggggagtg aggcagccag gacagtgcac cttcctgcgg gccagagct ctttttctct 840  
ccagggactg ggtattgagg tcgctgtctg ttttgggaac ccaggaactc agggctcttt 900  
ccttttcccc cttgtectcc tccctgccct gtcccctctc agagagggag agattccagg 960  
acagataaca atggccacta acacgtgtgt accagactct gtcctgagag ctttatgtga 1020  
attcattcca tttagtctc acaatattat tgtcgttctt gttttgcaga tgaagaaacc 1080  
aaggcataga gaggttcagt catctgtcca aggtttgcat gacacgtgac cccagcatgc 1140  
ttaagggcat ttctgaagggt gctctagagg cagccgtgca aagaccgggc tactgcaagc 1200  
atgatggtcg catacgagag cctgtgcagc cgggctgtgt tgctgcaggc gtgtagtggg 1260  
gtggaagctg tctattgtct gtttcagtgc tgcctgtgt gttacaaatg acacctcccc 1320  
ccaaaacaca cacacacacg gtggtttcct atcacagccg ttgggcaatg tgcaaggatt 1380  
ccagggatca ggaatgcagg tggccacagc agggctggct ttctttcccc tgttccttca 1440  
cttctgggac ctcagcaggg aagggaacta gcagctggaa tcatgcacct gtaattgggg 1500  
ctgcaataac ttggcaatta ggactgtcag ctggcatgca cacaggcgcc ctctgtgtg 1560  
gcgtggcttc ctcagcatgc ttggatttct tctatggtgg ccctgagatc tgagcatgtc 1620  
ccacatacga ggcagaagct gtatggcctt gggccgtgcg tgggtggctca cgcctgtaat 1680  
cccagcactt tgggaggctg agatgggcgg atcacttag gtcaggagt caagagcagc 1740  
ctggccaaaa tggatatatta ctaaaaatac aaaaattagc aggggtgtggt ggcgcacgcc 1800  
tgtagtccca gctactgagg aggctgagac aggagaattg cttgaacca ggaggtggag 1860  
gttgacgtga gccaagatca caccactgcg ctccagcctg ggctagagt agactctctc 1920

tctc

1924

&lt;210&gt; 1250

&lt;211&gt; 3109

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 1250

attgggtccc tgctagccca gctgcctgtg gacgttgtga ttgggaagat gctgatcctg 60  
ggctccatgt tcagcctggg ggagcctgtg ctcaccatcg cagccgcact tagcgtccag 120  
tcgcccttca cccgcagcgc ccagagcagc ccagagtgcg cggcagcacg gcggccgctg 180  
gagagcgacc aggggtgacc cttcacgctc ttcaacgtct tcaacgcctg ggtgcagggtg 240  
aaatctgaac ggagcagaaa ctctcgcaag tgggtccgcc gccggggcat agaggagcat 300  
cgactgtacg aaatggccaa ccttcggcgc cagttcaagg agctgttgga ggaccacggg 360  
ctgctggctg gggcccaggc cgcgcaggta ggggacagct acagtcggtt gcagcagcgc 420  
cgggagcgcc gggccctgca ccagctgaga cgccagcacg aggagggcgc ggggcgcagg 480  
cgcaaggtgc tgcggctgca ggaggagcag gacggcggct ccagtgcga ggacagggtc 540  
ggcccagccc ccccaggggc cagtgatggc gtggacatcc aggatgtgaa gttcaagctt 600  
cggcatgacc tggcgcagct gcaggccgct gccagctcag cccaggacct gagccgcgag 660  
cagctggctc tgctgaagct ggtgctgggc cggggcctgt acccacagct ggccgtcccc 720  
gacgccttca acagcagccg aaaggactca gaccaggtgg ggcctgttct gccccatcct 780  
atgttttgtc ctccaacaca cgaaccctga gtgcctgtcc tgtgccggga atgcagtggg 840  
gactgaaaca accctgggtt tgtccccatg gggctcacia cccagtggga ggacagaccc 900  
atccccagac aaccagagt gggcagggtt tggggagtca agagcactac aggagcccac 960  
agggggcatc tgccccagat ttggaggagt cagggagggc ttcctggagg aggggacctg 1020  
ggccagaggg tggaggagag gcatcctggg cagaggagag agcagatagg agggcttgtg 1080  
ctttctctct gtcctccgca gatcttccac acgcaggcca agcagggcgc cgtgctgcac 1140  
cccacctgcg tcttcgctgg cagccccgag gtgctgcacg cacaggagct ggaggccagc 1200

aactgcgacg gaagccgagg tacagtgagc ccaggcggaa ggaacccccca tccgggatgt 1260  
gaggggagcagg gataccgtga actcccaggc ccctctggct ggggctccca caccggccca 1320  
ggctgggtatt gacggggggcc cacaggaggg gaagttccag ggccaggcct ccctgggtag 1380  
ccttgggtga ctcaccctg ctgggcctca ccttccgcat ggtgggtgata gtcaacctaa 1440  
gccagtgtgg ctgtgcccag agagttagca ccggtcaggg ggcctgtcct atggactctg 1500  
tgagctccca ggtgggtcct gcagaggag gccccctgg caccctgtg catggaaggg 1560  
tgtctcgctg caggcatggc tgcgtgctgg gagtcacatt cagatttggc tgaccttctt 1620  
gtctgagcca ggccaccaa gccatgccgt aagcatactc tttctatcga tgtgtacttt 1680  
gaccgggtgg gacaggcggg cttctgatgg gcctgggtgg gccagggtgg gcctgagcgg 1740  
tcctcctcaa cctttcagac gacaaggaca agatgagcag caaacaccag ctctcagct 1800  
tcgtgtccct gctggagacc aacaagccgt acctggtgaa ctgcgtccgc atccctgccc 1860  
tccagtccct cctgcttttt agccggtctt tggacaccaa tggtgactgc tcccgcctgg 1920  
tggccgatgg ctggctggag ctgcagctag cagacagtgg aagtgccatc cgactcctgg 1980  
cggcttcctt gcggctccgt gcccgtggg aaagtgccct ggaccggcag ctggcgcacc 2040  
aggcccagca gcagctggag gaggaggagg aggatacgcc agtcagcccc aaggaggtgg 2100  
ccaccctgag caaggaactc ctgcaattca cggcatccaa gattccttac agcctccggc 2160  
ggctcacagg gctagaagtc cagaacatgt atgtgggacc ccagaccatc ccagccacc 2220  
cccatcttcc tggcctcttt ggcagctcca ccctgtcccc ccacccaca aaggggggct 2280  
acgcagtcac tgacttctc acctacaact gcctcacggt aagcatgaac cctccttccc 2340  
tgaaggtggg atttcaggaa gacccacca ccccgtttca ccttagtcca gggacatagt 2400  
tcccaagtgg ggcccgtggc cctgagggtt tctgggaagg gtcccggggg ggcacttggg 2460  
tgggtgggtgg cacttggcgg gggcccagcc ctgacagctg gcctgccaca gaatgacaca 2520  
gacctgtaca gcgactgtct ccgaaccttc tggacctgcc cccactgtgg cctgcatgcg 2580  
cccctcacgc ccctggagcg catcgcccat gagaacacct gccccaggc cccacaggat 2640  
gggccccag gtaagcacag gactgtgggg acccgccac ctctgcccag ccgtctgccc 2700  
atcccatgat ggtctcctgt gcgtgtgagc acttgctaga gcttcgagga ctgacgacct 2760  
ccaccgctg gccctggctg gtgccacaca caggccttgt cctgaagatc aggagcccaa 2820  
ggcagggaga gcctggagcg ccacctcttt ctgtctgcct gtcccctgtg gtgcctctgt 2880  
gttgctgtct ttgtctccag attccaggtg caggttctta gcacctccgc agccgctctc 2940

tcttgagtcc atcctcagtc tctcctaccc cttgaagtag ggggaccctg aatttgccca 3000  
tccacctggg tcactttgag agttgtgcag gggggctggg agcactgggtg ttcacgtggg 3060  
accacaggct gcaccataag acccactcac aataaaaaaa taaaaggcc 3109

<210> 1251

<211> 2033

<212> DNA

<213> Homo sapiens

<400> 1251

gggccaacga gcaggcgctg gcgtccggcc tgagtgagtg cacgtcaggg acggtggagg 60  
ctgcagcctg gaggggtgtc ccaagacccc agccgggacc tcgggctact tacagggtgg 120  
ggaagtgggg cgccaggcgg gccaggccgg gccgggggtca ggccaggagg gtgcggggaa 180  
cgggggcggg accctcaggc cgcgggctgg aaggaggagt tctgagacc ccagtaattc 240  
ccttgagac cctgcggagc gcggcgcccc tccccattc ctttctctcg gtccccgcac 300  
tccgcgaagg aggaagtgtc agcgcagggg aagaggcgggt tcagccccgg tggtttccgg 360  
ggtcaccgcc ccgaagcccc cgagtggggg ctccggcctg ggcatcggga gaagctcccc 420  
tgcccctcgg tagccagctg gcctggagggt cgctctccct gggcttgggg tggggaatgg 480  
ggtcatgccc tggggctcag cccttctcat ctggagtctg cgctggaggc ggtctgagat 540  
ttcacaaggc gccgaaacca cccagtgcag gccctgccc gccagctgc acaggcactt 600  
tgctcttggg gtgggatggc acagccccc gtcaccctcc tgtgcatttg ctcagagggtt 660  
ctggtgaggg cagcggactc catttggaag tggaccctct cgggaccagg gccagggagt 720  
gtctggccc gcacgggtga ggctgggctc aggcgagggtc tgagggcaga ggcaccactg 780  
cagcagctcc aggaaggacc tgcaccgggg gaggagtgcc tgggaagggc ctgggggctg 840  
agggtgagga ggagggggccc gctgccacca ctcccctggg gctctgagcg ccctccctgt 900  
tgtctggagg gtgcgtggca gctggagtgg gagcagagac ctcagggtgg gagggctgga 960  
ggacggggcc ctgcagcctg tctgtgccc aggaaagtga ccgcctgctt cgagtcagcg 1020  
gccaaagaagt cgggtgggtca gttcagacag ctctccccag agctgccccg tgagactcac 1080

cctgcctgcc ccgcactccc tacaggaagt agacggactg agggcaccca gctgggagcc 1140  
 aggagacctg ggctctagtc tggcctcctg ctgaaaccct ccaggggctc ctggccgaag 1200  
 agttagagcc agactggacg ccctgcactg cccgccctgg cctcccggct ctccggcccc 1260  
 ctccctccagc tgccgtgctt cttttctgtt cctagatctc ctgagcgtgc cccagggcct 1320  
 cggcacaagc tgctgcttct gcagagcctc atggctgtct catttatttc tcaattcaaa 1380  
 tgccacctgc ctggggaggt ccttccagac cgtgcagccc caggaggcag ctggcccgga 1440  
 gacagcaggg ccttgacaaa gagtcccccc tgtacacagc aggtgctctg taaatgtggc 1500  
 tgggtgccag aatacgtcct cagacctccc tgggtggcacc agcggcagct ttgcaccctc 1560  
 tttcggatgg caggctcggg accaggacgg tccccaaaga tgcattggaca attggctgag 1620  
 tagactcaag gacactgccc tcccctcctc cgacgcagac agacaaaccc agagagttaa 1680  
 tgtgtagctg ggctcaaacc aaggatagga aatcttccaa caagaccatg tggagacaaa 1740  
 aacagaatgg ctggcagggc aaggtggcta cacctgtaat cctggcactt tgggaggcca 1800  
 aggcgggcgg atcacgaggt caggagatcg agaccatcct ggctaacaca gtgaaacccc 1860  
 gtctctacta aaaatacaaa aaattagccg ggtatggtgg caggcgcgca tagtcccagc 1920  
 tactcgggag gctgaggcag gagaatcgct tcaacctggg aggtggaggt tgtagtgagc 1980  
 tgggatcacg ccacggaact ccagcctggg tgacagggca agactctgtc tcc 2033

<210> 1252

<211> 1832

<212> DNA

<213> Homo sapiens

<400> 1252

cactgagaac tgaagcactc agaggcagcg cccactgctc ctgtgccaac cgggtgtctgt 60  
 tcaccacag cgggtgttggc gctcctgtcg gatccctagt cccgggacac cagccccag 120  
 gcccttgctt ccttggagac gtcactccag cacttccact gcgtcctgtg ttatatcacc 180  
 ccttctttcc aactgcccatt tttatcattc ccatcaaatt acaaacatcc tggtattttt 240  
 ctgaaaaagt ttttcttgac cctatttcgc tcaccagctg tgactctctt tgtcctacct 300

tttcaatgaa actcctgtca agtgctgcct gtgctgccga ggagttcacc gcagacctcc 360  
acactgactc caatgaccag tgcttggttt ttgtctcatg cgtcagaagc ctctgacaca 420  
ggcgaccctt cccttctcca cacacggctt ccagggaaac agactcttgt ctccctacct 480  
cagtgactgc gccttctcct cttctctgtt gctgtggccc agggctgtgt cctggctccc 540  
ttccctctct catctccctc atttccctgg taaccttata ggtctcctgc ctttaaataa 600  
catcgataag caaacaactc caaagtgatg cctccatcac agacttccct ccagactcca 660  
gactcgcccc cctctaataa accaccttga actcaatgtg cgtacaaccg ggttccatct 720  
cagcccggcc ctcccagccc aacctgcatg cctcagcctg tggcgccctg ccagatgtcc 780  
agccactgtg cctgagccat agctgacaac tgtcttactc tgcccctgac tgccaggaag 840  
tcctgtgtgg tccagctcaa gatctgtcta gattctgact gcgctacca cctgcacctg 900  
cgtagccaca gccgtttccc tcccagacct gctgcctggg tctctgtctc tgcctgtgtt 960  
cctacagtga tccctttaca atgtgggcca gataatgcct tccttactc acagccctcc 1020  
agagcattct gtttcacca tggtcagagc cagactccta agaatggcct tcaaagcctc 1080  
tgtgccttct ccaaggcctg cgattctgca gcgagtgaga agtgcttccc cggggccttt 1140  
gcctgtcctg ctctgtgagg cgccctgtcc acacttattc acctgccagc ctcttactt 1200  
tctccgagtg ttgactttgg tgtcatgggt accgttctat ttcaaagagc ctctgtgtta 1260  
cctcccacca tcagtctccc tgatcctgtt tgctttatcc tttttctgta tcatttatta 1320  
ccttataaca tataagaaaa tgtacacact tatgtgtact gtctccaact gctagactgc 1380  
agacgcattc aggtgagtgt cttgcctgt tttcttact gatggattcc aagtgcctcc 1440  
gtaatgtctg gtgctgagta agcacttact cagttggata cattaaccag ttggataaat 1500  
taacatcctc ggagagataa gacacaaaaa ccaagaaata caaagaaggg ccaggcgcag 1560  
tggctcacac ctgtaatccc agcactttgg ggggcccagg cagacgaatc acctgagttc 1620  
aagatcagcc tggccaacat agtgaaaccc tgtctctact aaaaatacaa aaaattagcc 1680  
gggtgaggtt gggggcgcct gtaatctgta atcccagcta cttgggaggc tgaggcatga 1740  
gaatcacttg aacctgggag gcagaggtta cagtgagctg agatcgtgcc actgtactcc 1800  
agcctggggc acaagataga aactccatct cc 1832

&lt;210&gt; 1253

&lt;211&gt; 2385

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 1253

tttttgaagg	tcacaaacaa	caaaaacatg	gaaactcaga	atggaagggg	gcccatgaga	60
gcaatcttga	ggcataacaa	cagctgcaga	agggtgactgc	agggaagcgg	actgtgctcc	120
tattctttat	gttctgtttt	tagctgtgtt	tttcagagca	agtaggtacc	atgggtgatag	180
gtaccataga	aatagatgga	gcgcaccacc	cagcacgggg	ctgccaagct	gttcccctgg	240
aaatgcaccg	agagctgcca	gggagagccc	agggactctg	cttcctgggg	cctgtcagct	300
gcacggccag	ggaagaagtc	ccctgtagaa	tgggtccccag	aggcttctca	ctgtcttgct	360
gtcattgtcc	aaggtcctg	atgggtgcac	ctcctcctgg	agcacctgtg	gccttctctt	420
ctgagtcctc	aggaaactca	cttaaggggg	tttgcctttg	cctagtgaag	caattatctt	480
ggccaacagt	gacctcaaaa	gtagcactgc	cagcattcct	gtctccatag	ttaggagtg	540
gtggtcctca	tcctgcctgg	atgtggcact	gtcactgggt	ttatgcaatg	tcataaagaa	600
tttgtggggc	aggagctgag	ttctgaacat	ttggtaatca	ggaatactca	taaaatgaaa	660
tttcagagga	tctaaccag	aaagccgagc	aaggtagggc	ataaccacgt	ctgatatggt	720
ggttttcagt	ttgtgaagcc	acaggcgagta	cagaataggg	cccagcctca	actatttttg	780
gatgcagctt	gaatggactg	aaagaccctt	tgaacaagt	gctggaacca	tcccgtagca	840
cttacataac	catctctgca	aggctgttga	tagatgaatg	taaatgaacc	taggcagagc	900
ttagctcatt	tttatttaga	tttagaccaa	tttcatgtct	tctgaaacgt	aacctatata	960
tacacacact	aatctaact	cttttatatt	aggcctagca	tgagaggatc	aagttgaaag	1020
ggcatctgtt	attatatctg	tcccatcata	tctgcttctg	tgatggcttt	attatgtaca	1080
tttctttcta	tacatttgtg	ctctcaggtg	gcattcttct	tcagagcagg	gcaagtgtaa	1140
ttctggacca	atgtgtgatt	ctgagaccag	accaaccaac	tgaaggtaat	tttattctca	1200
attaaagaaa	cacagacggg	gcgcagtggc	gcacgtgagc	ctgtgggtccc	agcacttttg	1260
gaggctgagg	cgggtggatc	gcttggggtc	gggagttcgg	gaccagcctg	gccaacatgg	1320
tgaggccccg	tttctgctaa	agatacaaaa	attagccagg	tgacgtggcg	cgcacctgtg	1380
gtcccggctg	cttgggaggg	tgaggcgggg	gaatcactgc	aacctccacc	ccaaggtctc	1440

aggcgatatt cctgcctcgg cctcccaagt ggctgggacc gcaggtgtgt accaccatgc 1500  
 ctggctatatt tttttgtatt tttggtagag acgggggtctc accgttttgc tcaggctgggt 1560  
 ctcgaaactcc tgagctcggg cgggtccaccc gccttggcct ctcaaggtgc tgggattata 1620  
 ggcatgagcc actgtgcctg gctaggaatt tatTTtaaca accaaaaact taaaactcaa 1680  
 taacatcatt aactcataaa ttattgttta gttacagatt acgaaaatga tagaaccaga 1740  
 aggtgctaac aaaatgtctg tcctgcatgt gtggcatttg acatgaagaa actgaggccc 1800  
 ttgctgggcg cagtggctca tgcctgtgac ccagcactt tgggaggccg aggcaggagg 1860  
 atcgcttgag ctgaggagtt cagggccggc cttggacaag atggtgagac cttgtctctg 1920  
 ccagaagaat acagaagtta gccaggcatg gtgcagtgtta cctgtggtgg cagctactgg 1980  
 ggaggctgag gtgggaggat cgcttgatcc caggagggtca gggctgcagt gggccgtgat 2040  
 tgtgccactg caccacagcc tgggcgacag agtgagaccc tgtctcaaaa aaagaaaagt 2100  
 aaaggctacg cgcggtggct catgcctgtg gtttcagcac tttgggaggc cgaggcgggt 2160  
 ggatcacctg aggtggggag tttgagatca gcctgaccaa catggagaaa cccgtctct 2220  
 actaaaaata caaaattagc caggcgtggt ggcgcatgcc tgtggtccca gctgcttggg 2280  
 aggctgaggc aggagaatca cttgaacccg tgcggcggag gttgctgtgg gccgaggtgg 2340  
 tgccattgca cccagcctg ggcaacaaga gcgaaactcc atctc 2385

<210> 1254

<211> 2956

<212> DNA

<213> Homo sapiens

<400> 1254

acagggcccc tgctgccac ccgctcacgc actggctcac tcgtcctctg cgaacaggga 60  
 ctgcctccca tcaagacctc agcaactcgaa cagccattta gcacccgttt tcaccaagaa 120  
 gcagccgttt tcgagtcccc cgcccgggcc tcagaagcct gagctttggg tgagctgatt 180  
 ccactatcgg ggctcacgctc ggtggaggac acggctcctgc agcctcgcat gcgtcccaag 240  
 ccccttcca gagctggagt tctccaaata gcacaggagc tccacaggaa agccgagcag 300

accccgcccc ggccccgccc gcggtcactc actgtagcgc gtggctccgt aggccacacc 360  
gaggaacggg gcggagtagc ggccgagctg cgaaagaggt tggtcagagg cggcgcgaga 420  
cggggctcgc gggacggggg tcgcgggagg agggggggcg gggtcgctgg gcagaggtcg 480  
caggaggggt ggggtccgg tcgccgggcg agggtcacgg ggcgaggatc atgggggcgg 540  
gggcccggggg tcgcagcccg cggggtcggg gctgcggggc gggacacggg ggggcccaga 600  
gactggggcg gcggctgcaa agcctggatc accttgatga gcggagagac ctgactggt 660  
ggcaccatct tgtccccgac ctccgcaccg gaagcacaac ctgcagacgg agcaggatgc 720  
cgcacaagcc agcaaagcct tggaggcaaa ggcggagctg ggcgcacgca tgcgccgtca 780  
gcggcgagag agcggggggc cgcgccccct ggcgaccgaa gggtgactgc gcgccccgc 840  
gcggcggtga cgtcacgtga ggcgcacgcg cacaaggct ggggagtgcg cggaggatca 900  
tcggctcgc ctgcgcagtt gctgcgtgag gcgggatctg cgccgagtgg gcgggggggtt 960  
tcctttcccc gcagggttg gggtcgctg tttccccgcg ctgctgccga ggccccgccg 1020  
tccgcgtcct ggccgtgtgt ccacaccca gactgcgggc cggggcgcac tctgtcttct 1080  
tgcgcggagc gtcggaggcc tgaggtcagg gcggctcggg cgggtccagc cccgcggacc 1140  
gcgcccaccc gaggggtggc tgggcaggga cctgggggtc ctgggagcgg agtgtgagcc 1200  
gagtgcaggt ggctccccgg gcaggtcctt ctctacaag gcagtagtgt ctgtcgccgg 1260  
ccgggccgcg ttggattccg cggcccgcgg gagcatggcc tccaggcccc tcttcctgcg 1320  
gctgctctgc ccgggagcac ggggcgcctt tcatcccgga gctggagctt cctcaccca 1380  
ggatgcccc aacttctgt cccgaagagg ggctgggac tcttgggaa gaccagcccc 1440  
caacagaggc tgctccctgg gtccccgac tccaggcctc aggactccac ggctccaagg 1500  
gcctgccccg gccaggcct ggggaccact gagccccaca ctggtctttg ctggcctctg 1560  
tccacctccc ggtagctgtg tgtctccac agctgccag agatggggcc tgcggtgcct 1620  
atgcagcctc cccgtgtgc ccgaagtgt gaccgccag ccccatggac accaggcttg 1680  
gagtctaggc aggagcctgg caccctcc acgttctggg tcttcctggc ggcagccatg 1740  
ctgcccgtgc tgggccacc tcgggcccc tttggccca tgcagtagtg acgcaaggcc 1800  
tcctgtgtcc cctcctggc ctgcactgct acaggcagaa gcaactggag aactatggct 1860  
cgggtctcgc taaggtgcag catcacaac tccaggactc ttgaagcaag catggggagg 1920  
accgtgatc ctggcggcct gggctacctg tccgggccta agtcgcctct gccccctctc 1980  
ctggcttgct ctggggtcca gggcctgggc ctctctggct gagaaactag gaagtcactg 2040

ggctctgttt cctgagctgg gtataccaag gccagtccta tagggcaggg gtccccaacc 2100  
 cccaggtgca gaccagtacc agcttgtggc ccgttaggaa ccgggcagca caggacgagg 2160  
 tgaggagca tgattgccc agctccaccc actttcagat cagcctgggc atcagattcc 2220  
 cataggagcg tgaaccctac tgtgagctgc gcacttggat ctggattgcg ctctgggggc 2280  
 cagaagcaaa ctccagccct ccccggtgtct actgctcgct gaggaagccg caggtgcaca 2340  
 ctggatccac aaggcacaga accatcttgg ccctcggcaa gccccgctt ccgccagggc 2400  
 agacggcctc aggaagacca agaagaagga agggggtgcc ctccgggccc agagagcctc 2460  
 atccaatgtc ttctccaact ttgagcagac tcagatccag gagttcaagg aggcattcac 2520  
 actcatggat cagaaccgag atggcttcat tgacaaggag gacctgaagg acacctatgc 2580  
 ctccctgggc aagaccaacg tcaaggacga cgagctggac gccatgctca aagaggcctc 2640  
 ggggcccattc aacttcacca tgtttctgaa cctgtttggg gagaagctga gcggtaccga 2700  
 cgccgaggag accattctta acgccttcaa gatgctggac ccggacggga aagggaatat 2760  
 caacaaggag tacatcaagc gtctgctgat gtcccaggct gacaagatga cggcggaaga 2820  
 ggtggaccag atgttccagt tcgcctccat cgatgtggcg ggcaacctgg actacaaggc 2880  
 gctcagctac gtgatcacc acggggagga gaaggaggag tgagaccag ccgggtcaat 2940  
 aaacctggac gcttgg 2956

<210> 1255

<211> 2287

<212> DNA

<213> Homo sapiens

<400> 1255

ctctctgggg agctccggca gcgcaagagg gcaaagcaca gctggaagct cagagctgca 60  
 gtcccaggct ctgggccagg gccccatcc agcatcaatg aaagcagaag ccacagttat 120  
 tcccagccgt tgtgctaggg ggctcccatc atggcaagtc ctcagcccag tccagccctg 180  
 gcagacaagt gcacccaga acacgaccca gcccaagctc ctggctccac accagcacga 240  
 taagtcccag aagaagagca gccttcttaa ggagctgggg gccttcaca tcaccatcgc 300

tctgctgcac ctggtctttg ggggctacct ggctctata gtcaagaacc ttcacctggt 360  
gggtctgaag tcttggtatc cattctgggg ggctgcctct tttctcattt cagggatctt 420  
ggcgataaca atgaagacct tttctaaaac ttacctgaag atgttgtgcc tgatgacaaa 480  
cctcatcagc ctcttttgcg tgctgtctgg cctcttcgtc atctccaagg atctctttct 540  
ggagagccca tttgagtccc cgatctggag aatgtacccc aactccacgg tccacatcca 600  
gaggctggag ctggccttgc tctgcttcac tgtcctagag ctcttcctgc cagtgccac 660  
agctgtcaca gcctggagag gggactgccc atctgcaaag aatgatgatg catgccttgt 720  
tccgaataca ccattgcac tcaaaggcct gccggtggag ccccgccat cctaccagag 780  
tgtgattcaa ggcgacgcac aacacaagca acatcagagg ctgagagaag ttaagcaagt 840  
tgccccggac acatggatag tctactgacgg agctgcgac tggggccaga ctgcaaactg 900  
aagagccact gcctgacaat gccc aaactt ggttggagca tagccctgc tctccaaag 960  
ttgcactttc actgggaaga tgagatttgc acatacaaaa ggctagagcg atggtctata 1020  
cagcaaagtc agccctcaca gctcaacct gtcctctcag ataagccatt tcttacatag 1080  
ttgatggctc gatatctgtg gtagcccaga ttgttttgtt ttgtttcgct ttgttttgtt 1140  
ttcttttgtt ttgttgagat ggagtctgc tctgttgccc agcccagagt acagtggcac 1200  
tatctcagct cactgcaacc tccgcctccc tgattcaagt gattctcctg tctcagcctc 1260  
ccaagtagct gggactatag gcacacgcca ccacgcccag ctaattttta tatttttagt 1320  
agagacagga ttgcaccata ttggctagcc tggctcctcaa ctctgacct caggtgatcc 1380  
gcctgcctca gcctccaaa gtgctgggat tacaggcgtg agccactgtg cccagcccag 1440  
gttttgaagt tgtccgagat agcagtctgc tctctactgc cttataaaat ccctgtgtga 1500  
agggatgctc tcagtatcat ttgcccttgc acagaatct cctgggggtt gaggttcttt 1560  
gaattctccc tctttgtcat ctctttcgct gccacttctg gctgtggtca ctagcttggc 1620  
catagcacct ctcttctcca cttctgatct gctgcttcta accttctata gattgcagct 1680  
ggcttttaaaa tagattgtaa agtctaaggc attcggttct gagacagcgg cagagagagc 1740  
catgcaaag tttaggacaa cccagtcttt cttttttttt tttttttttt tttgagacgg 1800  
agtctcactc tgtcaccag gctggagtgc agtggtgcaa tctcggtca ctgcaacctc 1860  
tgctcccgga gttcaagcaa ttctcctgcc tcagcctccc gagtagctgg gattacaggc 1920  
gaccaccacc acgcctggct actttttgta ttttagtag agacagggtt tcaccacgtt 1980  
agccatgatg gtctcaaact tctgacctca taatccgccc accttggcct cccaaagtgc 2040

taggattaca ggcatgagcc accaccctg gctgaaaccc aatctttcaa aacatgaaag 2100  
 ggggtgatgg agaaaacctt agcttggttg tctaaagaca tgggtgcaaa ctctaggcta 2160  
 gctctgccaa tcacttactg tgcgggtttg actcagtcctt ttccctcat taggtcccag 2220  
 tttctccatt tgtaaaacaa gcaattgtgc tacattgatg gtttacatca ataaagtttg 2280  
 aaacggc 2287

<210> 1256

<211> 1618

<212> DNA

<213> Homo sapiens

<400> 1256

agctctggga gaagagcccc agccccagaa ttcccaggag tctccactcg gtgatcagca 60  
 ctgaacacag aggactcacc atggagtttg ggctgagttg gattttcctt gttgttatta 120  
 taaaagggtgt ccagtgtcag gtgcagtttg tggagtcggg gggagacctg gtcacgcctg 180  
 gagggtccct aagactctcc tgtgcagcct ctggattcac cttcggtgac ttctacatga 240  
 cgtggctacg gcaggtccca gggaaggact tggagtggct tgcatacatt agctctaacg 300  
 gtggctactc agagtatgca gactctgtga ggggccgatt caccatctcc agagacaacg 360  
 tcaagaactc actccatctt caaatgaaca gcctgagagc ccaggacacg gcaatttatt 420  
 actgtgcgcg atttacggtg tctatggaca cagtggcgta ctccatggt ctggacgtct 480  
 ggggcccagg gaccgcggtc accgtctcct ccgcacccc gaccagcccc aaggtcttcc 540  
 cgctgagcct ctgcagcacc cagccagatg ggaacgtggt catcgctgc ctggtccagg 600  
 gcttcttccc ccaggagcca ctcagtgtga cctggagcga aagcggacag ggcgtgaccg 660  
 ccagaaactt cccaccacgc caggatgcct ccggggacct gtacaccacg agcagccagc 720  
 tgaccctgcc ggccacacag tgcctagccg gcaagtccgt gacatgccac gtgaagcact 780  
 acacgaatcc cagccaggat gtgactgtgc cctgcccagt tccctcaact ccacctaccc 840  
 catctccctc aactccacct acccatctc cctcatgctg ccacccccga ctgtcactgc 900  
 accgaccggc cctcaggagc ctgctcttag gttcagaagc gaacctcacg tgcacactga 960

ccggcctgag agatgcctca ggtgtcacct tcacctggac gccctcaagt gggaagagcg 1020  
ctgttcaagg accacctgag cgtgacctct gtggctgcta cagcgtgtcc agtgtcctgc 1080  
cgggctgtgc cgagccatgg aaccatggga agaccttcac ttgactgct gcctaccccg 1140  
agtccaagac cccgctaacc gccaccctct caaaatccgg aaacacattc cggccccgagg 1200  
tccacctgct gccgccgccg tcggaggagc tggccctgaa cgagctggtg acgctgacgt 1260  
gcctggcacg cggcttcagc cccaaggacg tgctggttcg ctggctgcag gggtcacagg 1320  
agctgccccg cgagaagtac ctgacttggg catcctggca ggagcccagc cagggcacca 1380  
ccaccttcgc tgtgaccagc atactgcgcg tggcagccga ggactggaag aagggggaca 1440  
ccttctcctg catggtgggc cagaggccc tgccgtggc cttcacacag aagaccatcg 1500  
accgcttggc gggtaaacc acccatgtca atgtgtctgt tgtcatggcg gaggtggacg 1560  
gcacctgcta ctgagccgcc cgctgtccc caccctgaa taaactccat gctcccc 1618

<210> 1257

<211> 2772

<212> DNA

<213> Homo sapiens

<400> 1257

tttggctcca gccaccccaa tggcatttcc tcttaagctg ttgggaaaga caggaagcct 60  
aaggcatggg tacaggctga gaggtgatac tgaccctct gcgggtgggc ttggggctgc 120  
ttggtagagg aaacaaggac ttcagcagtc acaggaggcc agggctgtgc cttcctcact 180  
ccagggaac agggcagagc tggctctggg aagcaggga cacaggggca tggctggcct 240  
agccaggagg gttgttgag ccttcctcct cttccatttc aaacagaaaa gcggggctga 300  
gacaggagag gcagccctcc atctgggcag gtccccagt ctcccagcaa gggcaggaat 360  
tctgaggaca tgcctgagcc tcagagctgt aacctaccc caggactttg gatctgccc 420  
gagaacaaga tcagcccccc tgggacctat aaaccaggcc tctagacgtg ttcagcctgg 480  
caaggccaac ccggagagga gggcaaatga tagcgactcc cagggaaagg catgaagtgg 540  
ggctgggaaa ctggtatact tgcactgaaa tgaagatcac caggatgatt tgtgagttgt 600

ctgtaaactt tgtccccata tctattcatt gagaattcat tgatttcttt gggctaaaga 660  
ccatagatgg agactggaat acttactcga gaatctccaa ggttctgttc acagccaagg 720  
cttcccctag cacctgggcg cctgaagcac caattgaggc cacctggaga ctggggcgga 780  
gagggtgccg tcagtgtgag ccggctgggc ccacctcccc ccgcatactc cgttcccttt 840  
caccaccctt tgactcagga tggaaagtgg agaaacagca ctgagaatgg ttggccagcg 900  
ctgtgtctag gcactccatc tctacctac actgtctgtt gcctaagaca gagatctgga 960  
tgctaaggag atgagaaata gaggctgtcc ctggaagggc tcggggagaa tgctccctgt 1020  
acctcctcat tactactctc taggtgtttg agcccccaac tgctaataatc atatttccta 1080  
tattaggaaa atcaaacaca ctttccttga cttgtaaaca aaaataacgt ccaggccagg 1140  
tgtgggtggc cacacctgta atcccagcac tttgggaggc tgagggtggc agatcacctg 1200  
aagtcaggag tttgagacca gcctggccaa tatggtgaaa cccgtctct actaaaaata 1260  
caaaaattag gctgggtgtg gtggtgcacg cctgttatcc caactactgt atgggaggct 1320  
gaggcttgag aatcacttgg acccgggagg tggaggttgc agttagctga gattatgtca 1380  
ctgcactcca gcctgggtgg cagagcaaga ctcttgtctc gaggaaaaaa aaaaaaaaaa 1440  
agacctctaa cgtgaaagga tggcgaaggg accggtttcc tgactgctgc gcacatttag 1500  
gacttactag agagcagtga gggctgtgtt gaccttcagt gcacgggcca ccgcacacgc 1560  
tccgtcatcc ccgatggcgt tctcctgtaa actagacaca gagtatgacc cttttgggtg 1620  
cacggggcac agggagcatt ctagcaaggc cctgccgcac ttggacctgc caggtttaac 1680  
cgactacaca caccatagac actcccaggg tttcctgggg ataactgccc ttcctccaca 1740  
ggccctgcag cccgcctcat actaagcaca cagaggcgtc cggggcctgc atgagtctga 1800  
accgccagag gcaagcagga aatgggacat atagagtgc tgtcagcagg ggcttgggac 1860  
ccaaaagggg atgcttttca cagccaacca gaaaatgaac ttaaagccct caatccctga 1920  
gccattcttg tttgtcttgt tttctcttga gacgggggtc cactctgcca cccaggctgg 1980  
agtgcagtgg tgagatcacg gctcgtgca gcctcaacct cccgggctcg ggcgatcctc 2040  
ccgcctcagc ctcccagga gactaaagta cttaactaga gacggggact acaggcacat 2100  
gcccccatgc ccggctaata tttttattct tttatggaga tggggctctca ctatgttgct 2160  
caggctggtc ctgagctcct gggctcaagc ggtcctcccg ccttggcatc ccaaattgct 2220  
ggcattacag gcaggagcca ccacgcccac cctccttggc cattcttgct aattagggtc 2280  
ttgtgtcatt ttttccctt ctaagttgga gggaactagc agaccctggt gcagtgagtg 2340

actgagttta gctcaagcgc acactggtat gttcaaggcc aagagctggt tgcattcatt 2400  
attttaacag acatttgagt gtggccgggc gcagtggctc acaccttaaa tcccagcact 2460  
ttgggaggct gaggtgggtg gatcgcttga ggtcaggagt tcgagaccag cctggccaac 2520  
atggtgaaac cccgtctcca ctaaaaatac gaaaattagg ctgggtgggt gtatTTTTtag 2580  
tagagacagg gttctctgtc tctactaaat tagctgggag tgggtggaggg cacctgtagt 2640  
cccagctact ggggaggctg atgcgggaga atcgcttgag cccgggagggt ggaggttgca 2700  
gtgagccgag atcccgccac tgcactccag cctgggcgac agagttagac tccgtctcaa 2760  
aaaattaaaa tg 2772

<210> 1258

<211> 2980

<212> DNA

<213> Homo sapiens

<400> 1258

gttttttagtg gagacggggt ttcaccgtgt tcgccgggct gctctcggac tcttgacctc 60  
agctgatccg cccgcctctg cctcccaagg tgttgggatt gcaagcgtga gccaccgtgc 120  
ctgggctttt tttttttttt tgacacagag tcttgctctg ttgcctgggc tggagtgcag 180  
tgccgcgac tgggtccct gcagccttga cctcctgggc tcgagcagtc ctcccgcccc 240  
agcctctgag tggctgggac tacaggtgca tgctgccaca ccaggtgtgt tcatatgggt 300  
gtgtgccgca tgtgtgtggg caggtgtgta cagacagggt tgtgcgggcg gttgtatgca 360  
tgtgtgtggc agatgtattc agctaagggt tgtgcaggta ggtatgtgtg ggcaggtgtg 420  
tgtgtgtgtg tgtgcgtgca cacaaggcaa agggagcccc ggaagggtag ttgcttggga 480  
ggatgtgggg caatcagtgg gatctggggc aggagtgaca accgaacca gcagggggat 540  
cccaggccaa aggtgtggct gcataaaggc caagtggcca ctggaggcag aggatgcatg 600  
gggagaagag ccacgggaga gggcaggctg ggaggcaggt acccctaaag cagcagtcgg 660  
tcagtgtgta gagccagcag ggggcgaggc agggggctgg ccagtctacc tgttacctga 720  
gctctgcctt tctctgtaac gggagcttcc cagcaggcag catgtccctg tgggaccctc 780

aacccaaaca ggcctttccc tccgtgctct ggtgttcgtg ggctggagtc cctggcagga 840  
ggactgggca gagagacccc agagtccaag aaaggagagg tgactttgtg agcaaactgg 900  
gtgctgccgt gggtggggag cccctggccc tttttggacc tcactcctgg cctgggatgg 960  
ggcacagagt tccagggctg ggagctgggt ttctgctctt tgctggtttt gcccttgagc 1020  
cgtgggattc ttatcacgtg gtgtttgagg gctggaccat tgacatgagg cggaatgagc 1080  
cagagaggac tcgaagcctc agtgctcctg gccctctgtg agggctgcag ccgtgtgccc 1140  
tggagtatct gcagccttgg gcctctgggt gggcagggga gttgcttgtg ctcaaagccc 1200  
cctcctggga atcctgggac tcccctcccc cagaacctgg agttgcccc tctggagcag 1260  
ggcaggctgg agaccagccc tgtcagcttc ccaccttgg ggttgtgtgt cctcagctgg 1320  
agtggggaca ctgtccagcc tgccagtgtg agcgtctgag cctcaaaata gactccgttt 1380  
ttccagagcc gtggattccc ctgggctggg aggccataaa cgggcggcag cccagggtct 1440  
tggtcaccag gtcaggccca gcagcttctt ccagggccac cccctctgcc caccagggga 1500  
gctggagttt ggttccatct ccagggtact gatgtggctc atgctctagg gaaccaggaa 1560  
gctggacctg ggtaggtgcc ggggagctgg gatcaccttt aggaagctca tccccgtttt 1620  
acagaaagga aatcaaggct cagcagaagc cgtgtgcca gccctgcacc agggagagca 1680  
gggtcagttt cctgaggggc tgcgggccct ctgctgcagt gagaggcagc tggacatcag 1740  
agatgccgac agccccacca gccacgtgg ggaggggctc tggccacggt gctcccgggtg 1800  
ctggggctga ggcctccacg tctgagcctg agacgtggag gatcaaggcc gctgagcggg 1860  
cttgatcgct tcaagttgtg tgtgtgtctg gctcgtctgg ccagctctct gctacctgt 1920  
agggttgcct ggagcccact ggctgcctgt ggctggaccc cagcctgtgg gggacaccct 1980  
ggtaggcaga gggaccatgc actttgttca catctgaagg gaggaggcag gtgtgccctg 2040  
cgctcccc tccttctgtg ctggagaggg tggccctgcg tcccatgcct gcgctggctt 2100  
ctgtttcaga ggctgagggg atctggcggg ggagcgctag gatcagacgc ccccgcatg 2160  
accagctccc ccgtctccag agtcgtgtac aacggcaaga ggaccagcag ccccgcctcc 2220  
ccaccagca gcagcgagat cttcacccca gccacgagg agaacgtccg cttcatttac 2280  
gaagcctggc aggggtgtga gcgagacctg cgaggccagg tgccgggtgg cgagcggggc 2340  
ctggtggagg agtatgtga gaaggtccct aaccccagcc tgaagacctt caagcccatc 2400  
gacctgagt acctgaagcg ccggagcacg caggatgcca agaagtccta gagcgcccg 2460  
tgccccctcc cggcctccgg aagatcaggg atcaggaggg gagaagaagg agcctctgct 2520

gcctcccagg ctgctgggac tgggctgggtt ttgtccttga agtgggtcagg atacaggaca 2580  
 agggcagccc caccatcc agcctgggct ccccgagac ccttgctgct cccgtggcct 2640  
 ggacacgctg gggagcttct cacacctacc cctaccgtcc agcctggcct cttccctgaa 2700  
 tcagcttcaa gatggcacca gctctttggg cctaggatac tgccgggccc cccaaggggg 2760  
 tccccagcaa ccaggcctgg cctcctgggtg tctgcgggtca cagtggcccc tgggcagggg 2820  
 caccaggt gaccctgagg tgctgctgct ggggtctgtct tggctctggg gtgtgctggg 2880  
 agggtcacca ggtccctttt ccttcctgtg ccctctgaaa gctaagtgtc tgtgtggctg 2940  
 tggagctcga ggggtctgtga ataaaggcgg cggcactggg 2980

<210> 1259

<211> 1591

<212> DNA

<213> Homo sapiens

<400> 1259

aggtctcaga gaggagcctt agccctggac tccaaggcct ttccacttgg tgatcagcac 60  
 tgagcacaga ggactcacca tggaattggg gctgagctgg gttttccttg ttgccatttt 120  
 agaaggtgtc cactgtgagg cgcaagtggg ggagtctggg ggaggtttgg tccagcctgg 180  
 ggggtccctg cgactctcct gtgcagcctc tggattcccc ttcagtagtt tttggatgac 240  
 ctgggtccgc caggctccag ggaaggggct ggagtgggtg gccagcataa acaaagatgg 300  
 acgtgactca tactatgtgg agtctgtcaa gggccgcttc accatatcaa gagacaacgc 360  
 cgagacttct ctgtatctgc aaatgggcag cctgagagcc gaggacacgg ctgtatatta 420  
 ctgtgcgaga aaatttatgt tcgattcttg gagttcctat tacgtcgaag gacattactt 480  
 cgatctcttg ggccgtggca cccaagtcac tgtctcctca gcatccccga ccagcccca 540  
 ggtcttcccc ctgagcctcg acagcacccc ccaagatggg aacgtggctg tcgcatgcct 600  
 ggtccagggc ttcttcccc aggagccact cagtgtgacc tggagcgaaa gcggacagaa 660  
 cgtgaccgcc agaaacttcc cacctagcca ggatgcctcc ggggacctgt acaccacgag 720  
 cagccagctg accctgccgg ccacacagtg cccagacggc aagtccgtga catgccacgt 780

gaagcactac acgaatccca gccaggatgt gactgtgccc tgcccagttc cccacactcc 840  
 cccatgctgc caccctcgac tgctcgctgca ccgaccggcc ctcgaggacc tgctcttagg 900  
 ttcagaagcg aacctcacgt gcacactgac cggcctgaga gatgcctctg gtgccacctt 960  
 cacctggacg ccctcaagtg ggaagagcgc tgttcaagga ccacctgagc gtgacctctg 1020  
 tggctgctac agcgtgtcca gtgtcctgcc tggctgtgcc cagccatgga accatgggga 1080  
 gaccttcacc tgactgctg cccacccga gttgaagacc ccactaaccg ccaacatcac 1140  
 aaaatccgga aacacattcc ggcccaggt ccacctgctg ccgccgccgt cggaggagct 1200  
 ggccctgaac gagctggtga cgctgacgtg cctggcacgc ggcttcagcc ccaaggatgt 1260  
 gctgggttcgc tggctgcagg ggtcacagga gctgccccgc gagaagtacc tgacttgggc 1320  
 atcccggcag gagcccagcc agggcaccac caccttcgct gtgaccagca tactgcgcgt 1380  
 ggcagccgag gactggaaga agggggacac cttctcctgc atggtgggccc acgaggccct 1440  
 gccgctggcc ttcacacaga agaccatcga ccgcttggcg ggtaaaccga cccatgtcaa 1500  
 tgtgtctgtt gtcattggcg aggtggacgg cacctgctac tgagccgccc gcctgtcccc 1560  
 acccctgaat aaactccatg ctcccccaag c 1591

<210> 1260

<211> 2198

<212> DNA

<213> Homo sapiens

<400> 1260

agcttcagct gtgggtagag aagacaggac tcaggacaat ctccagcatg gccagcttcc 60  
 ctctcctcct caccctcctc actcactgtg cagggtcctg ggcccagtct gtgctgactc 120  
 agccaccctc agcgtctggg acccccgggc agacggtcac catctcttgt tctggagcca 180  
 gttccaacat cggaaggaat agtgtaaact ggttccagca actcccagga acggccccc 240  
 aactcctcaa tcataataat aatcagcgcc ccgcaggggt ccctgaccgc ttctctggtt 300  
 ccaagtctgg cacctcagcc tccctggcca tcagcgggct ccactctgag gatgaggctg 360  
 attattactg tgcagcatgg gataacagcc tgaatggttg ggtgttcggc ggagggacca 420



agctgaccgt cctaggtgag tctcttctcc cctctccttc cccgtctctg ggacaatttc 480  
tgctgttttt gtttgtttct ctatgttgte tcaagttgtg gtcagacttt ctccctacat 540  
cccaggcctg aggaaggacc tctgtcctcc ctgttcagac ccgtgcttgc ctcagctggt 600  
catcacagcc tcttcacgtc tgaccgcagg ggcaggggac tagatacaat gacctacgga 660  
gccccgactg tctgtctgtc tctctgtctc tctctctctg attgtctctc tgtctgactg 720  
gcagacgcag gctgggtctc taagccttgt tctgtcctgg cctcctcagt ctgggctctt 780  
gtcggaacag atttgacctt gggttacctg ggttccatgt cctggggaat tgggaacaag 840  
gggtctgagg gaggcacctc ctgggagatt tcagaaggac ccagtgccct cggggctgat 900  
gctcgggaat cacagagctg ggaccagag gcaggatcca gaccagaat gaggtaggag 960  
gtggaggggc tgcctgggc gtccgggggc tgccaggac tgagccctga gccagcctga 1020  
gactcaggaa acccgtcag gaggtagaag ggggaggag tctctggata ccagaaagcc 1080  
aggggcaggg tcacaaaagg agtggatgtg acggaagggc gggctcctgg gtctcttcgg 1140  
aacatatccc ctgtgccag ggggatcaga ggggcaaatt ccactgcgtg aaagccccac 1200  
tgctgtgacc aggtagccgg gacgtggggg ggatgccaga aaagactcca cggaataaga 1260  
gagagcccag gacagcaggc aggtctctccg atcccccccc gcccttgccc caaacacggt 1320  
ctccagaaca cacatatggc tggaacagcc tgagggacca aaaggcccca gtatcccaca 1380  
gagctgagga gccaggccag aaaggtaacc ccagagtctg ctgtgcaggg gagacacaga 1440  
gctctcttta tctgtcagga tggcaggagg ggacagggtc agggcgctga gggtcagatg 1500  
tcggtgttgg gggccaaggc cccgagagat ctcaggacag gtggtcaggt gtctcaggta 1560  
agacagctcc ccgtgcagat cagggcatag tggaaaacac cctgaccct ctgcctggca 1620  
tagaccttca gacacagagc ccctgaacaa gggcacccca acacctcatc atatactgag 1680  
gtcaggggct ccccaggtgg acaccaggac tctgaccccc tgccctcat ccaccccgca 1740  
ggtcagccca aggtgcccc ctcggtcact ctgttccgc cctcctctga ggagcttcaa 1800  
gccaacaagg ccacactggg gtgtctcata agtgacttct acccgggagc cgtgacagtg 1860  
gcctggaagg cagatagcag ccccgtaag gcgggagtgg agaccaccac accctccaaa 1920  
caaagcaaca acaagtacgc ggccagcagc tacctgagcc tgacgcctga gcagtggaag 1980  
tcccacaaaa gctacagctg ccaggtcacg catgaaggga gcaccgtgga gaagacagtg 2040  
gcccctacag aatgttcata gggtctcaac cctcaccccc caccacggga gactagagct 2100  
gcaggatccc aggggagggg tctctcctcc caccccaagg catcaagccc ttctccctgc 2160

actcaataaa ccctcaataa atattctcat tgtcaatc

2198

&lt;210&gt; 1261

&lt;211&gt; 2374

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 1261

acgagtgcag gagtcagtga tgggtgccgga gggcctgtgc atctctgtgc cctgctcttt 60  
ctcctacccc cgacaagact ggacagggtc taccctagct tatggctact ggttcaaagc 120  
agtgactgag acaaccaagg gtgctcctgt ggccacaaac caccagagtc gagaggtgga 180  
aatgagcacc cggggccgat tccagctcac tggggatccc gccaagggga actgctcctt 240  
ggtgatcaga gacgcgcaga tgcaggatga gtcacagtac ttctttcggg tggagagagg 300  
aagctatgtg agatataatt tcatgaacga tgggttcttt ctaaaagtaa cagtgtcag 360  
cttcacgccc agaccccagg accacaacac cgacctcacc tgccatgtgg acttctccag 420  
aaagggtgtg agcgtacaga ggaccgtccg actccgtgtg gcctatgccc ccagagacct 480  
tgttatcagc atttcacgtg acaacacgcc agatcctcca gagaacctga gagtgtggt 540  
ttccaagca aacaggacag tcctggaaaa ccttgggaac ggcacgtctc tcccagtact 600  
ggagggccaa agcctgtgcc tgggtctgtgt cacacacagc agccccccag ccaggctgag 660  
ctggacccag aggggacagg ttctgagccc ctcccagccc tcagaccccg gggctcctgga 720  
gctgcctcgg gttcaagtgg agcacgaagg agagttcacc tgccacgctc ggcacccact 780  
gggctcccag cacgtctctc tcagcctctc cgtgcactat aagaaggac tcctctcaac 840  
ggcattctcc aacggagcgt ttctgggaat cggcacacg gctcttcttt tcctctgcct 900  
ggccctgatc atcatgaaga ttctaccgaa gagacggact cagacagaaa ccccgaggcc 960  
caggttctcc cggcacagca cgatcctgga ttacatcaat gtgggtcccga cggctggccc 1020  
cctggttcag aagcggaatc agaaagccac accaagcagt cctcggacct ctcttccacc 1080  
aggtgctccc tccccagaat caaagaagaa ccagaaaaag cagtatcagt tgcccagttt 1140  
cccagaaccc aatcatcca ctcaagcccc agaatcccag gagagccaag aggagctcca 1200

ttatgccacg ctcaacttcc caggcgtcag acccaggcct gaggcccgga tgcccaaggg 1260  
 caccaggcg gattatgcag aagtcaagtt ccaatgaggg tctcttaggc tttaggactg 1320  
 ggacttcggc tagggaggaa ggtagagtaa gaggttgaag ataacagagt gcaaagtttc 1380  
 cttctctccc tctctctctc tctttctctc tctctctctc tttctctctc ttttaaaaaa 1440  
 acatctggcc agggcacagt ggctcacgcc tgtaatccca gcactttggg aggttgaggt 1500  
 gggcagatcg cctgaggtcg ggagttcgag accagcctgg ccaacttggg gaaaccccg 1560  
 ctctactaaa aatacaaaaa ttagctgggc atggtggcag gcgcctgtaa tcctacctac 1620  
 ttgggaagct gaggcaggag aatcacttgg acctgggaga cggaggttgc agtgagccaa 1680  
 gatcacacca ttgcatgcca gcctgggcaa caaagcgaga ctccatctca aaaaaaaaaat 1740  
 cctccaaatg gggtgggcgt ctgtaatccc agcactttgg gaggctaagg tgggtggatt 1800  
 gcttgagccc aggagttcga gaccagcctg ggcaacatgg tgaaaccca tctctacaaa 1860  
 aaatacaaaa catagctggg cttggtggtg tgtgcctgta gtcccagctg tcagacattt 1920  
 aaaccagagc aactccatct ggaataggag ctgaataaaa tgaggctgag acctactggg 1980  
 ctgcattctc agacagtgga ggcatctctaa gtcacaggat gagacaggag gtccgtacaa 2040  
 gatacaggtc ataaagactt tgctgataaa acagattgca gtaaagaagc caaccaaadc 2100  
 ccacaaaaac caagttggcc acgagagtga cctctggctg tcctcactgc tacactcctg 2160  
 acagcaccat gacagtttac aaatgccatg gcaacatcag gaagttacc gatatgtccc 2220  
 aaaaggggga ggaatgaata atccaccctt tgtttagcaa ataagcaaga aataaccata 2280  
 aaagtgggca accagcagct ctaggcgctg ctcttgtcta tggagtagcc attcttttgt 2340  
 tcctttactt tcttaataaa cttgctttca cctt 2374

<210> 1262

<211> 1931

<212> DNA

<213> Homo sapiens

<400> 1262

ttaggactta tcttagaagg gcatcaggaa ggctgatgaa tcctccacaa atctggggta 60

catttttcat ggcacaagag ttagagttgt cactgaattc tataaagggg ttctaagatc 120  
cagagagtag ccatcgaatt ttgatggaaa aattcttgaa agccaattta aagggtctta 180  
taggtgtgta tctttgtgcg catcttcaca cactgtttta ggaagcaggg taacatcttg 240  
gtcattgggtg aggacctgag ctctctctcc tcctccctgg gccaggacgc tgcagaggag 300  
tcctgcgcac tcactgttca ggtcttccag atcatctacg gggaccagag tattgagtgt 360  
gtggaccggg ctggctacca ctacacatcc acacctgaac ggccatggct ctgcagccgc 420  
agtgagagct gccacacaga tgggacgtat gcctatgatg ccgacttcag ctgctgcagc 480  
tcctttaatg gctcccagga cacctttgaa gcatgttaca gcggcacgtc cacaccttct 540  
ttccatggct cccactgcag cggcagcgac cacagcagtc tgggcttgga gcagttacag 600  
gattacatgg tcacgttgcg gagtaagctg gggcccctcg agatccagca gtttgcatg 660  
ctgctgcggg agtaccggct ggggctgccc atccaggact attgcacagg cctgctgaag 720  
ctctacggag accggcgcaa gtctctctc cttgggatgc ggcccttcat cccggaccag 780  
gacatcggct acttcgaggg ctctctggag ggcgtgggca tccgcgaggg cggcatcctc 840  
actgacagct tcggccgcat caagcgcagc atgagctcca cgtcggcctc cgcagtgcgc 900  
agctacgatg gcgcggcgca gcggcccgag gcacaggcct tccaccggct gctggctgac 960  
atcacgcacg acatcgaggc gctggccccc gatgacgacg acgacgacga ggatgagccc 1020  
cggggctcca ggggcgggag cgacgccgca gaagacaact acctgtagcc accgcccctg 1080  
cggacggcgt ggctcagcag cccacctctg agtctcagct ttgcttcggg gaccctatcc 1140  
ccaggggccc cccatcacac ctggcggggc cgggggggtct tccctccagg gtctcgtctc 1200  
ctgcccttgg ggcccggggc catgcagtac ctggagtgtc ctgcaggggg aaagcgaagc 1260  
cgggccctga agtccggggc agtcacccgg ggctcctggg ccgctctgcc gggctggggc 1320  
tgagcagcga tcctgctttg tcccagaagt ccagagggat cagccccaga acacaccctc 1380  
ctccccggga cggcgcagct ttctggaggc tgaggaaggc atgaagagtg ggctccacct 1440  
gctggccgac tgagaaaaga atttccagaa ctcggtccta ttttacagat tgagaaacta 1500  
tggttcaaga agagaggacg gggcttgagg gaatctcctg attctcctta tatgacctca 1560  
aactgaccat actaaacagt gtagaaggct tttttaaggc tctaaatgtc aggggtctccc 1620  
atcccctgat gcctgacttg tacagtcagt gtggagtaga cggtttctc caccagggt 1680  
tgactcaggg ggatgatctg ggtcccatc tggtcttaag accccaaaca aggggttttt 1740  
cagctccagg atctggagcc tctatctggt tagtgtcgta acctctgtgt gcctcccgtt 1800

accccatctg tccagtgagc tcagccccc tccacctaac aggggtggcca cagggattac 1860  
tgagggttaa gaccttagaa ctgggtctag caccgcataa gagctcaata aatgttggtc 1920  
ctctccacat c 1931

<210> 1263

<211> 2431

<212> DNA

<213> Homo sapiens

<400> 1263

ggtttttgtt ttgggttgaa gttgaggctg aggagagagc cgagctagcg acgagcagtc 60  
gttgcggccg ccggcgccgc gggaggtggt ggaggcctag ccggagccga gaggtctctt 120  
gttcccgtcc cacggtcccg gcgtcacccc tccggcgccc agtccccgtc ccggaactcc 180  
cgggcctgtc ctgggcccc ggtctgtgca ctccgctcgc cgcagcgccc ggcccgggcc 240  
gcacccgccg gcccctagag gagggacgtg aacggagtga ccaagagcag gtttgagatg 300  
ttctcaaata gtgatgaagc tgtaatcaat aaaaaacttc ccaaagaact cctgttacgg 360  
atattttctt ttctagatgt tgttaccctg tgccgctgtg ctcaggtctc cagggcctgg 420  
aatgttctgg ctctggatgg cagtaactgg cagcgaattg acctatttga tttccagagg 480  
gatattgagg gccgagtagt ggagaatatt tcaaaacgat gtgggggctt tttacgaaag 540  
ttaagtcttc gtggatgtct tggagtggga gacaatgcat taagaacctt tgcacaaaac 600  
tgcaggaaca ttgaagtact gaatctaaat ggggtgtaca agacaacaga cgctacatgt 660  
actagcctta gcaagttctg ttccaaactc aggcacctg acttggtctc ctgtacatca 720  
ataacaaaca tgtctctaaa agctctgagt gagggatgtc cactgttgga gcagttgaac 780  
atttcctggt gtgaccaagt aaccaaggat ggcattcaag cactagttag gggctgtggg 840  
ggtctcaagg ccttattctt aaaaggctgc acgcagctag aagatgaagc tctcaagtac 900  
ataggtgcac actgccctga actggtgact ttgaacttgc agacttgctt gcaaatcaca 960  
gatgaaggtc tcattactat atgcagaggg tgccataagt tacaatccct ttgtgcctct 1020  
ggctgctcca acatcacaga tgccatcctg aatgctctag gtcagaactg cccacggctt 1080

agaatatgg aagtggcaag atgtttctcaa ttaacagatg tgggctttac cactctagcc 1140  
 aggaattgcc atgaacttga aaggatggac ctggaagagt gtgttcagat aacagatagc 1200  
 acattaatcc aactttctat acactgtcct cgacttcaag tattgagtct gtctcactgt 1260  
 gagctgatca cagatgatgg aattcgtcac ctggggaatg gggcctgcgc ccatgaccag 1320  
 ctggagggtga ttgagctgga caactgcccc ctaatcacag atgcatccct ggagcacttg 1380  
 aagagctgtc atagccttga gcggatagaa ctctatgact gccagcaaat cacacgggct 1440  
 ggaatcaaga gactcaggac ccattttacc aatattaaag tctacgccta cttctcacct 1500  
 gtcactccac ccccatcagt aggggggcagc agacagcgct tctgcagatg ctgcatcatc 1560  
 ctatgacaat ggaggtggtc aaccttggcg aactgagtat ttaatgacac ttctagagct 1620  
 accgtggagt ctctccagtg gaagcaaccc cagtgttctg agcaagggtt acaaagttag 1680  
 ggagggcagt gtccagatcc ccagagccac acatacatac acatacacac cttaccccc 1740  
 atccactcta gctttgtgac catgggactg aagtttgtga tggctttttt atcaagtaga 1800  
 ttggtaaaat ttaaccattc ctgttgaggt gcccataaga aaatcatagg ccaagatagg 1860  
 gaggggcatt ccagcaaacc ccgtgttaat gctactgtgg tttttaaat tttgtctagg 1920  
 ggtttctttg gggatttttag aacagcatct gctgtcctcc ggggtcaaga aaagcatgga 1980  
 aagacaatat atgatgtacc cagggaccag aaagaaaatt tctttgcatc ttagaaatgg 2040  
 tagacattca ttgtgactaa agagcttcta tgcttccttg tttccatgcc aacatgctga 2100  
 gcatgtcac aaagaaggct cgtccattcc tcctgtgttt tagtatttgg cccagagggt 2160  
 tcctaaatgg ttgccttgaa atcactgtgg tccaaatgta attcttacac actcaaatta 2220  
 tcaactgtctg tagcacactt gtgcacctgt cttacattct ctgttgctcc cccccacact 2280  
 cttgctcagt ctgtcacctg ttcagtctgc ttactcactc aattgttacc cttttgctgt 2340  
 tgtcgtgttt acagtttgca ttttgaatga ttagttggga ttaccaaaca ttttttaaaa 2400  
 agatattatc aataaatatt tttttaattc t 2431

<210> 1264

<211> 2352

<212> DNA

<213> Homo sapiens

&lt;400&gt; 1264

gctgggcaac accagcgaga ctgcttcaga aaaaaaaaaa aaaaaaaaaa aagtggaggg	60
gaggctcata ggccgcctcc caggctgggc agggatgagt taaccgacat ccagtaggat	120
gggggacacg ggggcctctc tcttctgccc caccctcat gcctgggccc cagggactcc	180
ctccagcctt cctgccaagt tcctagacag ccccagagcc tggctgggct gtgatggggg	240
cgaccgaggc agctggaggg gcagctgtaa gcagagcccg taaccagacc tggacggccc	300
tggggcccgg ctgccgggac caggttactc gatccccga gggatgctgg ccccgagacc	360
agaatcctgg ggcggcccgg acgataggga gctccttgta tggaactgga gacagacatc	420
ccgccctcgt cccttgctgt gtggcagatg gagaaacgga ggcttcaagc ctgcctggga	480
tcactgtcat cttggaacag agaggcccag agagggcgtg tagctggcct aaggtcacac	540
agtaaggtea tttaacctaa agtgaatgcc tgtgtgccag gccctgagct agtgtcttta	600
ttttatggac aacagcaaaa aaaaagatgc gggcagggca cggtaggtca tgcctgtact	660
cccagcagtt tgggaggccg aggtggcagg atcacttgag gccaagagtt caagaccagc	720
ctgggcaaca tagcgaaacc ccgtctctac aaaaagtaca aaaatgagct gggcatggtg	780
atgcacacct atgatcccag cttactgggg aggctgagac aggaggattg cttaaacctg	840
ggaggtttag actgcagtga gctatgacgg caccactgta ctcagcctgg gcaacagagc	900
aagaccctgt ccttagaaac aaacaagaaa tgaggctgag tgtcgtgtct gagtgaaggg	960
gagagcccca ggagtccttt ctgtgctgtg ccagccccc catccacctt gaccttctgt	1020
ctcttctct agtgggtctca gtctccacgc ttttctctt gcagttcctt ccccttgag	1080
caccttcccc accttgtcac gaggtctccc cttcgacctt caggcctcag ctcaaagtgc	1140
ccctcctcta atcattctc atgtttttat ggtcgtgctt attattgtca gaagctatcg	1200
agttccgata ttggttaacg tgtgtagtgt acccccgtct cccacggga ctgggagccc	1260
cataagggta gggctttgta gctgtctcgg tcacagctgt gtcccatgc ctgaacacat	1320
gtgtctggta tacagctggg gccaaataat tattaatcca atgagtaagt aagtgacttc	1380
caatttgggg tacagggcgc cagagctgga tgcagttgct tccaagttgg cggttgagcg	1440
aagatgaggg cagggtagtt gtggctgggg gaaccaggg aaactgaggg ccagccaggg	1500
cagtcagaga aggcttctg gagtcgggga cacgcatgca tggccttgac tggtaagcag	1560
gagtcagctg tagggcttgg aggacagagc gtgaggttac tatgtctggc tggttgggag	1620

ggcagctgga ccttgaggag gctaaaaagg ttccccagca gaggggacag cctgagccaa 1680  
 ggtctgcagg gaggggctgg aaatgcctga tagtaggtga gggcaagaag aagcttcaag 1740  
 ttattcccag ggtgggaggt gtccttgaac actgaggtat aaaaaaaatt ggttctaggc 1800  
 cgggcgcggt ggctcaggcc tgtaatccca gcactttggg aggccgaggc aggcgatca 1860  
 cgaggtcagg agatcgagac catggtgaaa ccccgctctt actaaaaatg caaaaaatta 1920  
 gctgggcgcg atggcgggcg cctgtggtcc cagctactcg ggaggctgag gcaggagatt 1980  
 ggctgaacc cagaaggcgg agcttgcagt gagccaagat cgtgccactg cactccagcc 2040  
 tgggcgacag agtgagactc catctcaaaa caaacaaca aacaaaattg gttcttcttc 2100  
 tgtggggcgc tggggagcca tggtaggcct ttgagcaggg gagtggcagg gtcagagctg 2160  
 agcttgggat atgcagtaaa gggatggctt ggtggtggtg ccggggtcag agaggagagt 2220  
 gggcattgcc cttgaaggac agctcaatac ccaggctagg aattaccctt gggacagagc 2280  
 cagggaccaa gccagcttct ggaagtaaga aggattcaag gtagattgaa agtaaaactt 2340  
 ccctgctcag gc 2352

<210> 1265

<211> 2320

<212> DNA

<213> Homo sapiens

<400> 1265

agagccgccg ccattttgcg ggaagaggag gcgctgtacc tgcagtgtg cttttcttgc 60  
 ctagactcta ggaactatcc gagctccact cccacaaca tactcaaagg aacggagaga 120  
 accgggaccc ccctgcgggg acccggaact gatctgacag gatggcatct gatgactttg 180  
 acatagtgat tgaggccatg ctggaagctc cctataaaaa agaagaggat gagcaacaaa 240  
 ggaaagaagt taaaaaggat taccctagca ataccaccag cagcaccagc aacagtggca 300  
 atgagaccag tggaagcagc accatcgggg agacaagcaa gaagaagagg agtcggagcc 360  
 ataataaaag cagggataga aagcgcagtc gtagtcgaga tcgggatcgg tatagacgga 420  
 gaaatagtcg gagccgaagt ccaggtcggc agtgtcgtca ccgtagccgt agctgggatc 480

gtcgacatgg tagtgagtcg cgaagtcggg accatcgtcg tgaggatcgt gtgcattaca 540  
ggagtcctcc acttgccact ggttatagat atggacacag taagagtcct catttcagag 600  
agaagagccc agtcagggag ccagttgata atctgagtcg tgaggagcgt gatgcccgcga 660  
cagttttctg tatgcagtta gctgccccgaa ttcggcctcg agatctggag gactttttct 720  
ctgctgtagg caaggttcgc gatgtatgta tcatttcaga tcggaactca cgtcgtttcta 780  
agggcattgc ctacgtggaa ttctgtgaaa tccagtctgt gccactggcc attgggctga 840  
ctgggcagcg gttgctggga gtgcctatca ttgtacaggc ttcacaggca gagaaaaacc 900  
gactggcagc catggccaac gacctgcaa agggaatgg tggaccaatg cgcctctatg 960  
tgggttcctt gcacttcaat atcactgaag acatgctccg gggcatcttt gagccctttg 1020  
gtaaaattga taatattgtc ctgatgaagg actcagatac aggccgctct aaaggttatg 1080  
gtttcatcac gttcatcct cctcctttag gaactgtcta aatgacccat aaaccctggg 1140  
gcctgaagct tggactagcc ttctaccctt tgagatgagt gcattgcttg agatcttggc 1200  
tttgctccta cactctgtca gtggccctgg tatgggggtg ttcaggagt caccagctt 1260  
ccctggtgct gcaacttggc tctttgggta atagtaacca ggctgcagct aaaaggttgg 1320  
gggtgtgagg gaggttaggt atgggctttt aaagacatgc tttatagaat tgatgtttct 1380  
cataacaggg atgggaatag gaaattatac ttccctctgg tgctaccca tttgaagcaa 1440  
tttctgcacc gagaaggatc agttattaac gtagcactat ggggagaata gtgaggccac 1500  
ctaattatgg gcaagcttca ccttttctg acattccaac aaaatggttg ccaattccta 1560  
taactggttc ttccagctcc atgtgactcc aggctgagaa ctggctgcca gccacaaagt 1620  
ctgatagaag cttgtatfff ctgggcttaa accaggcagc atacactccc acagtgaccc 1680  
acagggcaga gggcagtagg ttgtattctg tcattggaat tgctcacctc aaaaatatcc 1740  
agtaaaggca agccatgtat aacacctgcc taggaactgt cagtaccaca tgccaggccc 1800  
taaggcaggt aatgctgcta gctagctaaa caagctagct gtggtgttga caattctgtg 1860  
gtggcaagta acttttgtaa ccttttctcg ctctctgtgt gactgagata tggaaaggct 1920  
tctgtggggc atttttgccc ttgcattgtt gccttttggg tcaacaacct tgacacttaa 1980  
acaaacagca gactgggaat cctctttgta ccagtgtgtt gctgggtgct gctgataaaa 2040  
gggactagag agtaaaggcc ctctggctcag caggtcactt agtcaacagc tcttgtgtgt 2100  
atgtgggggt gtgggttctg ccttgctgtc agcactaggg tgtgttcctt cttagcctg 2160  
gaattaggag ttccagattc ctagtactta actaaaattt ggccaggcgc ggtggctcac 2220

acctgtaatc ccagcagttt gggaggccaa ggtgggtgaa tcgcctgagg tcaggagttc 2280  
gagaccagcc tgaccaacgt ggtgaaaccc catctctact 2320

<210> 1266

<211> 2025

<212> DNA

<213> Homo sapiens

<400> 1266

ctcattttct cttgccaccg ccatggaaga agagtctttc acttcccgcc atgagtctga 60  
ggcctcccca gccatgtgaa actctttggc ttctcgattg gttctgaact cccaggaagg 120  
tgaaaaagca gcgtcattac ttagcaccgg aagccccggc actcaacagg gatactgtgc 180  
agtcctgcat gtgagcagct caagagttct tttcaagtga gacctgctgc taggagagaa 240  
gtaagctgac agcaccagc aaccacactg ttgagaaccc ctgtggcatc atgttcctgc 300  
tgaggccggc cactttcttg ccaaactact tgcagccagt gactgagcat gggaaagcga 360  
gaccctagag cccagctatt cctgcccagt gcaggactcc tccagacttc cagactgcac 420  
tgcagactga ggcacttcct agctgagcct ccttcttttc ttctctcctt tcagctgctc 480  
ctgctccatt gccattttct ctcaccttta tcctgcactt ctgcttccat cttggcatct 540  
tcttccctca agaccaacc tgacaccatc agtattatta cactcttcat ttcccagtgg 600  
aggagggtggg gatccaggca agaaagacaa agcgtaaata tgctcccttt aaaattttgt 660  
actgctctat cgcttctggg cctttgggct aagatcaagt gtaaaagttt gtactactct 720  
taggtttgag gttcacatga aaagaacatc tcatcaacat ttcaaaagaa aatttgaatg 780  
aattgtatgt tgtactagtg tgtaaaagag agaccgtgtc atttattcat aaaactgagt 840  
ccagtgggac ctgcccattc aatgcaaaaa tgcaaaggta tgtaggatct tagaaaatga 900  
aagacaatgc taaagacagg aaccatttcc agcatctgtt gttgaggtcc gaatctggaa 960  
agactcagaa tgtattttatc agaaaaacaa tttccccagt aagacaatag ctgcaaagct 1020  
ggtcatacaca tgcaaatctt gaccttcaact tttgcacaat tttggaacat gtaactggta 1080  
agcactacct acaatttttt gctttgcaga catggaaaat acaacatact gacaaaatgg 1140

acttttaaaa tttgggtttt accttaacaa aataaacttg agtctgattc ttcattctca 1200  
 aacatattag aaagggataa aagaatttct ctgtgatatt ttaaccctta ggaatatctg 1260  
 aacatgagtg tgtttgtaca cataatttaa aaattaaata tgtttctttt catggcataa 1320  
 ttttctaaag gaaggaggga caggacttac cctcgctaga gtctttcgaa cattctggct 1380  
 tctttgcttt gctctttttg taggggtggag agaggccttt tggctctaac ccctctggaa 1440  
 tcacgaagat ttaatatctt catttaaata ttaccagta gggttcaaaa ttatgtgaaa 1500  
 tttaaaaatg tttacttctt agtaaacctt cacacacgct gaatcttaat tgcagtttca 1560  
 tctgtcatca tggctgagcg aaattctggc aagggttgtt ggttctccaa cctacataga 1620  
 cttaaactta aggcttaagc taaaacattt ttgtagataa cattagtgtt tcacacaaat 1680  
 gtaaaatctt acacatgtgc ttttataaat ttagaaattc tccataaggg aaccctgtta 1740  
 atattttttc ctccaagagt gttcgatttc aatcttcata gattaattga caattgtcat 1800  
 tgtgcaattt catcttactc agtcctgaac gcagggctag aggaatggag aaaggaatgg 1860  
 ggctagaaat taccctgctt ctatttaaca aactgttttt agtaatccag attctaaaca 1920  
 acttctgtat gtcccagtta aattactgtg cttcctattt tcctcaatgt ccctctaagt 1980  
 ctatccttgg gggcaaataa attaaagtct gaggacagtg tcagg 2025

<210> 1267

<211> 3030

<212> DNA

<213> Homo sapiens

<400> 1267

ttttgccttc cagcttggct ctggctccct tcctccagca aggggtgggtt gagctctcac 60  
 atggcaccac tttgacctct tctgcttccc tcttctacac tgaaagactt atgggccagg 120  
 agcagtggct cgcacctgcg atcccagcac tttgggaggc cgaggagggc ggatcgcttg 180  
 gccccaggag ttcgagaccg tcctgggcaa cgtggcgaaa ccccatctag aaagaaaaga 240  
 agagaagggg agggggggagg ggaggaggag ttacatatat acacatacac acacacacac 300  
 acgtacgtac atacatacat acacgctagc tggacgtggt ggtgcgtgcc tgtggtctta 360

gctttccagg agactgaggt gggaggacca cttgagcctg agatcgcgcc agcctgggtg 420  
acagtcagac catgtctcaa aaaaaaaaaa aaagatttgt gattaggatt cttagtcctc 480  
acctgtatta ttttctatt gctactgtaa caaattacca caaatttact ggcttaaaac 540  
gacgcaagtc ttaggtcag aagtctgaca cgggtcttaa ctggtgaccc gagtcagatt 600  
tgggacacaa agaacagaaa ccaagctgtg caggtttctg acaggcagtc cggttgggga 660  
gccctacagc aaccgcccgg tcctctctct caggcagttg ctgccatggc tcattattcc 720  
aaccggttct cctcagccca gtctatctca gtggctccat tcatagggtg atgtgcccgg 780  
cgggacacta accctaacca agcagagaga cggctatgcc cgtcacgacc tcggccctcg 840  
ccccggccga ggcttctcct gcaggtcgcg agaatcaggt gcgtcagcgg cgtccgggaa 900  
cgccggaaga gccagtggag cggctctgta gtccaaagta ccccgtcgac cccagcacgg 960  
ccgctccacc gcctctact agaccagtc ctagggactg cgcagtcgca gagctccgtc 1020  
cgagtaccgg aagcctaggc cgccagcact tccgggaagt gacttcgtct ccgaagccga 1080  
ttggttggtg ctttgctccc gctcgcgtcg gtggcgtttt tcctgcagcg cgtgcgtgct 1140  
gcgctactga gcagcgccat ggaggactct gaagcactgg gcttcgaaca catgggcctc 1200  
gatccccggc tccttcaggc tgtcaccgat ctgggctggt cgcgacctac gctgatccag 1260  
gagaaggcca tccactggc cctagaaggg aaggacctcc tggctcgggc ccgcacgggc 1320  
tccgggaaga cggccgctta tgctattccg atgctgcagc tgttgctcca taggaaggcg 1380  
acaggctccg tggtagaaca ggcagtgaga ggccttggtc ttgttcctac caaggagctg 1440  
gcacggcaag cacagtccat gattcagcag ctggctacct actgtgctcg ggatgtccga 1500  
gtggccaatg tctcagctgc tgaagactca gtctctcaga gagctgtgct gatggagaag 1560  
ccagatgtgg tagtagggac cccatctcgc atattaagcc acttgacgca agacagcctg 1620  
aaacttcgtg actccctgga gcttttggtg gtggacgaag ctgaccttct ttttctctt 1680  
ggctttgaag aagagctcaa gagtctcctc tgtcacttgc cccggattta ccaggctttt 1740  
ctcatgtcag ctacttttaa cgaggacgta caagcactca aggagctgat attacataac 1800  
ccggttacct ttaagttaca ggagtcccag ctgcctgggc cagaccagtt acagcagttt 1860  
cagggtggtc gtgagactga ggaagacaaa ttcctcctgc tgtatgccct gctcaagctg 1920  
tcattgattc ggggcaagtc tctgctcttt gtcaacactc tagaacggag ttaccggcta 1980  
cgctgttct tggaacagtt cagcatcccc acctgtgtgc tcaatggaga gcttccactg 2040  
cgctccaggt gccacatcat ctcacagttc aaccaaggct tctacgactg tgtcatagca 2100

actgatgctg aagtcctggg ggccccagtc aagggcaagc gtcggggccg agggcccaaa 2160  
 ggggacaagg cctctgatcc ggaagcaggt gtggcccggg gcatagactt ccaccatgtg 2220  
 tctgctgtgc tcaactttga tcttccccca acccctgagg cctacatcca tcgagctggc 2280  
 aggtagtagt gtgacggccc aggcatctgc atggacagca tgcgctaaca acccaggcat 2340  
 agtccttaacc tttgtgcttc ccacggagca gttccactta ggcaagattg aggagcttct 2400  
 cagtggagag aacagggggc ccattctgct cccctaccag ttccggatgg aggagatcga 2460  
 gggcttccgc tatcgctgca gggatgccat gcgctcagtg actaagcagg ccattcggga 2520  
 ggcaagattg aaggagatca aggaagagct tctgcattct gagaagctta agacatactt 2580  
 tgaagacaac cctagggacc tccagctgct gcggcatgac ctacctttgc accccgcagt 2640  
 ggtgaagccc cacctgggcc atgttctctga ctacctgggt cctcctgctc tccgtggcct 2700  
 ggtgcgcctt cacaagaagc ggaagaagct gtcttctctt ttaggaagg ccaagagagc 2760  
 aaagtcccag aaccactgc gcagcttcaa gcacaaagga aagaaattca gaccacagc 2820  
 caagccctcc tgaggttgtt gggcctctct ggagctgagc acattgtgga gcacaggctt 2880  
 acacccttcg tggacaggcg aggctctggt gcttactgca cagcctgaac agacagttct 2940  
 ggggccggca gtgctgggcc ctttagctcc ttggcacttc caagctggca tcttgcccct 3000  
 tgacaacaga ataaaaattt tagctgcccc 3030

<210> 1268

<211> 2889

<212> DNA

<213> Homo sapiens

<400> 1268

aaagcagccg tgccgtgtcc cagggcggga attgtgcggg gacgggctcc acggaggaat 60  
 cttctcttcc ttcccttgat gttgccagag gactcaggag gctctccaga tgctgcagcg 120  
 agtgacaagc acatccaatg gctcctaggg gcagatggcg aggtctgggt ctggatcatg 180  
 ggagaaggcc ctggtgacaa gccctacgaa gagatctctg aggagctgat tgcagagagg 240  
 gcgcggctgc aggcacagag ggaagctgag gagctctgga gacagaagga ggcagagatc 300

accaagaagt tccgggatgc tctggccaat gagaaagccc ggatcttggc ggagaagtgg 360  
aaagtggaga tggaagaccg caaggctgcc aaagtcctgg aggaacgcat ccacgaggaa 420  
ttcaagagga aagaggaaga ggagaggaag cgaggagaag agcagattcg cctccaggaa 480  
gagcagaggg cgaaggagct ctactggacc ctgaagcagg ctcagctgca ttgccaagcc 540  
agtgagaaag aggagcgaga gtgggaagaa caattgcgcc ggtccaaggc ggctgatgag 600  
gagaggagcc gccgagccca gcgcgcccgg gacgagtacc gacatcactc gctccgtgct 660  
atccagaagg gcacggtcgc tggcctcagc tccatgttcc gggagcttgg ccagagccat 720  
gagcaggagg caagactcta ccaccacctc cccgacccgg gtctgccgca gcccttggcc 780  
ctgccggtca gcaggacctg ggagcgccccg ctgcgccag tctccagaga tgtcatcgctc 840  
cgctggttta aggaggagca gctgcctcgc cgagctggct tcgagaggaa caccaagttc 900  
atcgcgccct ggttccatgg aggaaattat cactgtttca ggaggagagt tacttcagga 960  
accctgcgga cagagggaca gcccaccaga ctaccatctg ttgtttgaat aatTTTTTtc 1020  
cttatcaatt ggattcattt tggatatctg tttttgaact cagcttaaga acttctcatc 1080  
tcaaadccta tggccttctg gaagatccac cactatccaa aggaaaaagt agattaatat 1140  
gcctcaaggg atatgacatc tatggcatag ggctactggc ctcacccag cgatcgggac 1200  
agaaattgct aatagctcat gcaactcttt catgaagagc ttagctatga ccttagaaga 1260  
caaagcctgt ttgtcatggc tgccgtaaac cgagctctta cagtgcgtgg accatgtttt 1320  
aataatccaa aataattcca gtgccgaacc ctgaatttaa catatggtag acattcagta 1380  
aatgtttggt gaatgaatgc atgtcttcta aaagttttcc aacacaaatt agcagtgggt 1440  
tcttgtaaat tatttcctac tcgccactct ataaaatcat ggcaataata gaagattatg 1500  
aaggatttct atggaggaca taaatgctgc atctttcata atctccatta tcacctcat 1560  
tgatattatc attggaatta tctaaggatga gccccagttt ccagggcagc tgattgacac 1620  
cgtcctgcct tccttattta acctcttctt ttgccactcg cctctatctt tgaatcatat 1680  
tttggccttg gttttgcaat ggttttatgt catcctacag atgtcttcaa gacctgggggt 1740  
gagttatcaa tgcaagaatg gttcttagaa atctgatgag gcctctgctc tctgggatgt 1800  
ggccctctct atgcaggtta ctccaatgat tagctctgct ctcattgtcc ttttaattcc 1860  
cttgtaact taatctcagt atgttgctta tattaacaag aagactcacg caataactcc 1920  
tcgataactc tcagtgatgg tatctgttgg tgcatacttg tgttcacag ttatggccat 1980  
atacacagag gtagtatatg atgaagagaa gattacagtc ttacagtca agaagacttg 2040

ggttcataatc ctaaccctgg aacttactag cattataatg cttgcagcat tgtgttttgg 2100  
gagaggaaaa gaatgaatgg attctaggaa tgtagggaa cgatttactt taccgatgg 2160  
ctgtatcaaa catctatgcc ccacttcttc tcttgccca cctattcctt agattcttgg 2220  
tcacttctct accacaagcc accagcacta taaccagttt tgcgtgggtt ctgctcttcc 2280  
tccctatgtt gatcagtgtc atgtgagcat aagccaatgg tagcttgcca catgccccat 2340  
ctccatttgc tgcagaggca taagacagaa gagatgggaa gtgaatgcc gatgtggtga 2400  
atctgggatg aatgggagtc ataggctggg agatcgcttt ttcctccttc ttcctcctgg 2460  
aggaactatt ctgagagtca tctgttttga tggcttttga gaagacagtc ctgtaagatc 2520  
gagcaaccag tcatgatgaa accaagtggg ggccggatca gtatgacacc ctgctgcccc 2580  
cgtttttaat tcttctctgc cttgccctgc tctctcctgt tgctctggga ttgcacttct 2640  
gaatgaagta gcagtcata agcttttggc acaggctctg tcttttgggg aatccaggat 2700  
aagaacccat tatacagaag tgttcaataa tatcaatttt gcaactcact cagctccatg 2760  
gcttcccccg gtctacctgt ctcactacat gcataaagtg aatgatgga aggaatctgc 2820  
tttctgaact ctaatgtgcc ttcattgatt atcattaaaa ttatcattaa aattgcctta 2880  
tttctatgg 2889

<210> 1269

<211> 2467

<212> DNA

<213> Homo sapiens

<400> 1269

tgttttctta gaatttctcc ccatcactcc tccatctctt cctcctcca gtctgaactt 60  
ctaactcaag gtaatgttgg catagccaat attaaggaaa atgtaatggg aaatatataa 120  
aatgatctaa ggatttcatt cttttacctt tctgtcccca cctgcttgc cccatttga 180  
tgggtgctgat actctgcctt tctttcttct ccttaactta agctgtcact ggccatcact 240  
tcaggaagct taccttgtag gggctgttta tatttccgtt taatcttctc attgcttatt 300  
gtctatccag gagatataaa tgcagagatc cctcaactct gattaaatct aaagtaccct 360

taaaagtact taaagtactt aagaagtggc acttaagata ggtttttagcc aaataaaaagg 420  
ttgaattttac ttaaagtgtt cagggttttt ttttgttttt gtcttttcatt aatgagggtta 480  
tatgctatfff ggaaatttga agaaaaaaac tacaggtgat gctgactgtc agcaagccag 540  
ctgctttttcc agcactggga gatttgtgct cttcctatca catgctttca tttgggttct 600  
cttgtgaacc cacagcatat ttttgcaaag gtctgactta tattctaaca ttttgaattt 660  
ctctgtatgg ttaaagaact tagcaaaagc tatgtttttc agtttggttg ctacattagc 720  
cacagggtac agaaagggtc agggtaagta aaataatcca aaactctgta tagtcaagca 780  
gctttccagt aatgtttcag agcagttacg gggacttaga cttcctctat tctgcctta 840  
ccccctactc tgtggttagag attctaata atagataaaa gaacattgca gcaaaaacca 900  
aaataatgca gaccagctag tcagtgcaca taatagtgtt gactgtttga ggacagttct 960  
tttccttttt gtcctaagc tctgtcata tcttcattct taccaccagg actccctggg 1020  
agttgcttgc tgacctcct gttcagagca ctgcatagca aaggtagtgg gtaaccatgc 1080  
aagcttcttt gctgctgtcc tgtcttctc tcagtagtct gtctactgta atagtctctc 1140  
cctttttaca ggtgaatgac ctggatgggt ataaccgaac agccctccac tatgcagcag 1200  
agaaagatga ggcttgtgtg gaggtcctat tggagtatgg tgcaaaccac aatgctttgg 1260  
atggcaacag agatacccca cttactggg cagcctttaa gaacaatgct gagtgtgtgc 1320  
gggctctcct agagagcggg gcctctgtca atgccctgga ttacaacaat gataaccgc 1380  
tcagctgggc tgccatgaag ggaaatcttg agagtgtcag catccttctg gattatggcg 1440  
cagaggtcag agtcatcaac ctaataggcc agacacccat ctcccgctg gtggctctgc 1500  
tagtcagggg acttgaaca gagaaagagg actcttgcct tgagctctc cacagagctg 1560  
ttggacactt tgaattgagg aaaaatggca ccatgccacg agaggtggcc agagaccgc 1620  
agctatgtga aaaactgact gttctgtgct cagctccagg aactctaaaa acactcgtc 1680  
gctatgccgt gcgccgtagc ctgggactcc agtatctccc cgatgcagtg aagggccttc 1740  
cactgccagc ttctttgaag gaatacctgt tacttttaga atagccggag aagatgtttg 1800  
caccatcgtg caggcagctc tgggtgaggt tgtccctgca gtactcctg tcacagaaaa 1860  
cagaaaaaca gttgttctg ttgtgtggtt tatagatttc gaagcaacat gtcacaacaa 1920  
taacctccat agcacctccc ctcccaaac caacaaccc aacaaaaaaa atccctcact 1980  
tttgttttct gtttattgct tacctggctt tttatattgc attttgcaaa agaagaggtc 2040  
tccctcaatc ctcccttta gggaaggagt caacagtgt actaaatttc tctaggaaga 2100

tggaaagtac ttaaataatg tgtgtgtggt tttcctttgg ggacgtgggtt aacgggtccag 2160  
 aagaatccct tctagaaagc attttaggcc agccatgggtg gctcacgtct gtaatcccag 2220  
 gactttggga ggctgaggca ggtggatcac ctgagggtcag gagttcgagc ccagcctgac 2280  
 caatatgatg aaaccccgtc tctactaaaa atacaaaaat tagctgggca tgggtggcatg 2340  
 cgcctgtaat cccagctact caggaggctg agacagaaga atcgcttgaa cctgtgaggc 2400  
 agaggttgca gtgagccaag atcgcgccat tgcactccag cctggacaac aagagcaaaa 2460  
 ctgtctc 2467

<210> 1270

<211> 3107

<212> DNA

<213> Homo sapiens

<400> 1270

gaaccagacg gaagcgcgct gggactgaca cgtggacttg ggcggtgctg cccgggtggg 60  
 tcagcctggg ctgggaggca gccccgggac acagctgtgc ccacgccgtc tgagcacccc 120  
 aagcccgatg cagccacccc cagacgaggc ccgcaggggac atggccgggg acaccagtg 180  
 gtccaggtgg aaccaccctg tgtatgcatg accctgacaa gcaggcgcca ggacagtcag 240  
 gaggccaggc ccgagtgcca ggcattggacg gggacgctgc tgctgggcac gtgccttctg 300  
 tactgcgccc gctccagcat gccatctgc accgtctcca tgagccagga ctteggctgg 360  
 aacaagaagg aggccggcat cgtgctcagc agcttcttct ggggctactg cctgacacag 420  
 gttgtgggcg gccacctcg ggatcggatt gggggtgaga aggtcatcct gctgtcagcc 480  
 tctgcctggg gctccatcac ggccgtcacc ccaactgctc cccacctgag cagtgccac 540  
 ctggccttca tgaccttctc acgcatactc atgggcttgc tccagggggg ttacttcct 600  
 gccctgacca gcctgctgtc gcagaagggt cgggagagt agcgagcctt cacctacagc 660  
 atcgtgggcg ccggctccca gtttgggacg ctgctgaccg gggcggtggg ctccctgctc 720  
 ctggaatggt acggctggca gagcatcttc tatttctccg gcggcctcac cttgctttgg 780  
 gtgtggtacg tgtacaggta cctgctgagt gaaaaaggta acgcaggccg ggcgggctag 840

tcccgggcgc ccacagctgc ccagtgcctc ctcccctggt ggcagccgct gagcagcctg 900  
gagcaggagc ccggagacga tggctttgac ctcccaaaga atccgccagt gaggaaaagc 960  
gctcgggtgc tgagctgtca gcggctccgc cacccaattc gatctggaag gttccatcta 1020  
gggctaaggc agacaccag gaagacctgc tgggcacagg tcagggcagg gtgcaggagc 1080  
agccgagtct ttgggtggcc agggggctct ggaggaggcc gtgtggaggg tcgttcagaa 1140  
cgcagttctc aaaggtgatg ctgcctgtta ggtgtctggt aggggaggcc aagggaggct 1200  
ggcgcccatg tgcaacctga ggcatggacg aggcctgctg acccctctgg aaccaccccc 1260  
aaatcccaa tcctttggca acgggtggcg cctcccgcct tgatagccat cagtttgaaa 1320  
ccgttgctcc ctcatatctc atcctggcct tgggtgtcct ggcccaaagc cggccggtgt 1380  
ccaggcacag cagagtcccc tggagacggc tcttccggaa gcctgctgtc tgggcagccg 1440  
tcgtctccca gctctctgca gcctgtctct tcttcatcct cctctcctgg ctgccacct 1500  
tcttcgagga gacctcccc gacgccaagg gctggatctt caacgtggtt ccttggttgg 1560  
tggcgattcc ggccagtcta ttcagcgggt ttctctctga tcatctcatc aatcagggtt 1620  
acagagccat cacggtgcgg aagctcatgc agggcatggg ccttggcctc tccagcgtct 1680  
ttgctctgtg cctgggccac acctccagct tctgtgagtc tgtggtcttt gcatcagcct 1740  
ccatcggcct ccagacctc aaccacagtg gcatttctgt taacatccag gacttggccc 1800  
cgtcctgcgc cggctttctg tttggtgtgg ccaacacagc cggggccttg gcaggtgtcg 1860  
tgggtgtgtg tctaggcggc tacttgatgg agaccacggg ctcttgact tgcctgttca 1920  
accttgtggc catcatcagc aacctggggc tgtgcacctt cctggtgttt ggacaggctc 1980  
agagggtgga cctgagctct acctatgagg acctctagct cccaaccca cagcctctcc 2040  
aaggaccag gcgccagcag ccccgggaca caggggactc agtgtgtggg acttggtcac 2100  
tccatgtcag acacacgagc agagaggaac acaaaccact gtggagcctg aagctcctta 2160  
agaagagtcc acaacagctg gtgggagggg ggggtgggcc tgggtccaga ccaggctcgc 2220  
tgctctctgg gcctcagttt cccacctgc cagcgggctc ggccctgtcc tcctcacagg 2280  
ctggtgtggc cgtcagggtg ggtggggtta ttgttagtag gcgcagcctc attcccacca 2340  
cgatctgttc cgcgtgggtc ccgcaaac tccctcggtc gccgtgttct ccgcaagcct 2400  
cctgcagcgc ccgcctgcca atgtgaggct ggcaccaggc tgcagcctcc ccaatccag 2460  
cccactttgc tgtgtctctg gcgggctgtc ctcttgggtg ggagctgtcc tgcacactgt 2520  
aggatgctta aaggtatccc tggcctccac ccatccctag ccagcagctc ccagtcagac 2580

aacagccaga aatgtctcca gactctgccc agcctcccca ggtagccacc ctcgagacat 2640  
gacctcagag tctctgtgtc tcctagaagc ctgacagaga cccccagggc agtgggtggg 2700  
tggcgggcta gagacccttg cctgtgtccg ggaccctggc gccgctctcc cctcctgtgg 2760  
atccctccgc actaacagtg ttctcagtgg gcagacgcct gggcaccctt tgggccctgc 2820  
ccagcatggc catggcgag gctctcgaac ccgcatggct ttcccaggcc tgggtgattct 2880  
gctctccagg gacggttggc accttctcgc ggggcggggc ccacgcacc cagaacacac 2940  
agaccacact ttctggcggt ctttctacct cccttttcgt tgcctgagga gctggtggtt 3000  
tcatgagtta atgatacatc ttgcaagggtg tacacataga gaaaaaac taaaaatgtg 3060  
gaaaagcacg ccaaagcctt atttaaataa taactattaa actattc 3107

<210> 1271

<211> 2535

<212> DNA

<213> Homo sapiens

<400> 1271

agtaattcaa aactttgaga tataaatata attctttaaa aactgcagcg tggttcactg 60  
gccctgtgat gggctgaatg cgcccccaag ttcatgtggc agccttgacc ccaggacct 120  
cagcgtgtgg cgtcttggag acaggggctt tacagaggcg atgaaggtaa aacaagctct 180  
tatggtgacc ctgaccagc aggaccggtt tccttatcag aaagggatct ctggacacag 240  
agacagacgt gcacgtgtgg agacacctga agatgaagat ggcactctacc aggcggggga 300  
gtggcctcag gagaaacggg ctctgcccac gcctcgacct cggacttcca gcctccagag 360  
ccgtgtgaaa agaaacttcc atcatttaag ctgccctgtc tgtgggactt tgcctcggca 420  
gcctgagcag acagtacagg ctccaaaaac gctctctgca tgtgtgattc tggccaggac 480  
caccctgccc gaagccacgg ctatgtcgaa gctaattgtg cgatttctgc cggccacgtg 540  
gttttgatcc aaaagcattt gaaagctgct ctgaagatgc agaaaagctg agtcccggca 600  
tcgctgctcc ttccaagcga ctgttcacac acaggggtgtg agtgcgtccc cccatccagg 660  
gtccagcctg gcctaaggct cactgggcac catccagatc tgtgactggg tcccccatc 720

cagggtccag cccacccgag gttcactggg caccatccag aggccccaga tgccgacacc 780  
tggggacggg ctgtatcagg cagatgtttc ctcccgggct ccacctgggg acgggccccg 840  
gatgctgaca cctggggatg ggctgtatta ggcagatgtt cctcccgggc tctagttttc 900  
caggccgaca ggaggaagtc ctgttggggc caggggaggc attggggatg agattgagag 960  
gatggtgggg tgcgaaaggt ttacattgcc tgtgccactt tctccaaggt ctggggccgc 1020  
caccctgtgg tgcctctgga agctgccatg tggggctggc ccacggtgac tggccacggc 1080  
ggggctgtgt gtggtatgca cctgtgagct gctgaaacgc agcctggcgg ccaggaacca 1140  
gctgccccat cctctctgca ggaggtcagg tttgagcacg tattccctca aacgctcata 1200  
gacgtcagta tctcaggaca aagtgcctgt ctgagacca ggtttgggcc ccaaggtggt 1260  
accatcgagg gaggcattgt ctggcagggt acagcccctc ctctgtgcct gaacctgcag 1320  
tttctgcccc cgcataaaat gccgccatct caggccctcc ctgaccccca acctgcacaa 1380  
gggctcacag ctggcaggca cctgtgtggg gtcgtggtag gacctgtgtc tctgaggtcc 1440  
agcccaaggc tgtgccacat aggcccaaat ccaagcactc ccctcctggg cacgtggctg 1500  
tgtgtgcatg tgtggctggg tgggcagggg ggttgactct ggccaccgaa atggagagga 1560  
gcggtgcact ccctgggtct ggcccacgca ggctccttcc caagtgtgc tgccgggaaa 1620  
tggaggtccc taggtgagac gggagccggg cactgtgggg gtggcccctg aggggctgca 1680  
ggttggcact gccagctga cgcattccgc agtcctgcac caggggatga acgaggaatc 1740  
ggcttctgct ctgctgaaca tcccactggt tcatgtccac ttgtttgggt gatcctaact 1800  
gatctgctac ctgagtttga atctcagcgc tattattagt caggggtcct ggaggtgggt 1860  
gacccacct cacctaaacc acagagatgc tcatcctcat gcatgcacac gtccatctca 1920  
gcttcagctc gcaagcagga ccctcaccgt ggggccacga cggaccctgc aaagctggtc 1980  
tgacttgcc gagcctgtcg ggggttgggg gaaggaaggc gggagctcgg catctggagg 2040  
gcagtggaga ccctcagcga gtgccaggag gatctgctgt cttcccagtg ttgtcttcac 2100  
agtggagaga tgagttcaca cagccttata tgtgtttcca gtggcctctg tgtgcaagac 2160  
gggccacggg ttttgtgcgg tatttgcctg tgggtcacag ccaggtgaat gggccctcct 2220  
ggggctgcag cccaggtcc tgatgttact tgtgccagcc tggccacagt gcccggcctc 2280  
cagaagctgc tgtcagagga gcagacggga gggcaggggt gacggttaac aggggtcaagg 2340  
ccccagagcc ccacaccctc cccagcagcc agcacaccct ctgttctgtg acctcgcccc 2400  
tgcattgcgg caactgacag atgctccccg gcctccttcc ccgctgccgc gcaacctctg 2460

acagccacgt gtactctcct gctttagaac aaggaccttt cccttttgtg catgaatacg 2520  
ctctcagcag atgcg 2535

<210> 1272

<211> 2831

<212> DNA

<213> Homo sapiens

<400> 1272

ctccctgttc caggaataac atgagtgccg ggacaatgca tctttattat gagaggaatg 60  
agaatttgtt agcttgacat ttgacaggag cttgctttcc cccaggctgt ttgaggaagg 120  
gcagaggaaa gtgtggtgcc ctaagaagga aggacagagg aggccgaaca ctggcgggtg 180  
gaatcccact gattagtagt gcaggtcaga gacctgggat ggggggcatt gccgtcatgg 240  
aagccacagc ggggagcggg taaagcagac agggatggtc cctgatgggtg acaactcgca 300  
agagggttaag gggaaagaaa aactgaaaag cttattcaat ttggcaatta tggcagtgtt 360  
tatcttcaga agagcagttt tagggtgggg tttccaaaga tgggattgga catatatattt 420  
gaatcattaa gcttgaggtc tttcaaaggc ctggccaagg gttgctgggt ggagaccaca 480  
ttcagaggta aaggcagaaa ttgggggccc ttaagtagac agcgaggagg gaagaaatga 540  
aggggcctgg tgatggttag ggtgaaatgt taagactgag aaaacaagga catgtgagaa 600  
gacgaggga gagcattgga gagaacaaag aactggagg agatgctact tggaggtccc 660  
cagagagcag ggagacaaat gaaccagaa cacaaatggc aaagaagaaa aatgagagaa 720  
tttgtaaaag acagcattcg aacatgccga acaagagcag ggtactgggtg ttcaaacc 780  
tgtatctccc ccgtgtaacc cgtcaactaa tatctttcca tatttgctcc agatttgtct 840  
ttagaaataa aaccacgtt ctgaagtcct gtttgtatgt ggccccagtc ctgttgccctc 900  
cgctcctgt cctgaagtcg atttctgccc ttctcatcta tggttagttt tgttttgtat 960  
gttggcatgt tttcttaact ttacagaaat ggtatcatac tgtacatatt tgataatttt 1020  
ttaaaatatt gcattctgga ggcatgtata aatgtagctc cagttcattt attttattta 1080  
ttttttgaga tggagttttg ctcttgtcac ccaggctaga gtgcaatggc gtgatgttgg 1140

ctcactgcaa cctctgcctc ctgggttcaa gcaattctcc tgtctcaatt tcctgagtag 1200  
ctgggattac agttgcccgc caccatgcct ggctagtttt gtattttagt agagacgggg 1260  
tttcaccacg ttagccaggc tgggtctcaa ctcctgactg caggtgatcc acgcaccttg 1320  
gcctccaaaa gtgctgggat tacaggcgtg agccaccgtg cccagcccag ttattttaac 1380  
tattgtatag tgttccattg tatgagttct actgtttata tgctattgat cgacctgtag 1440  
gggttttgca gtgtttctgt attacagctg tgctgcagtg agcatcccat cacatttgtgt 1500  
ggatttgagg aagtattgga attccccaa ttgactggac attccaatt accctccaag 1560  
tatgtgtctg tttatccttc catccgaat ctgagagttc cccaactcta taatacttgg 1620  
tgtcatcaga cttttcatct tgtctgattg gatgggtgtc atttccttta ggttttataa 1680  
ttatcttttc atatgtgtat tggctgtaca aggttccttc tctgttcatt attattaatt 1740  
tttttagaca gagtctcgcg ctgtcgccca ggctggagtg cagcagcgtg atcttggtctc 1800  
actgcaagct ccgcctcccg gggtcatgcc attctcctgc ctcagcctcc tgagtagctg 1860  
ggattacagg tgcctgccat cagccccggc tagttttttt gtattttgag tagagatggg 1920  
gtttcaccgt gttagccagg aggggtctga tctcctgacc tcgtgatcca ccgcctcgg 1980  
cctcccaaag tgctgggatt acaggtgtga gtcactgcgc ccagcccaag tttccttctc 2040  
tgttacttgt tcatatctc tgcccatttt tcaattggat ttttgtctt acggatatatt 2100  
aagcctctta aatatatat tctggagaga tgctaattct tgattaatta tatgcattgc 2160  
aatgtctgg tacattgtgg cttgcctctc ttccctgcct ttaggagtgt tttgctggac 2220  
ccaagtaatt tttaaatggt aatgttatta aatctatcag ttttttgctt gtatggctta 2280  
tgccattgaa tcttgtttta agagatcctt ccctaccctc aaggttttct aaatttttat 2340  
tttcataaca agatttttag ttcacttgaa atgtattttt atgattgtat ttagtaggga 2400  
cctaattttg tttttctttg taaccagggtg tcccagcact gtttactgaa cagtctctcc 2460  
tttctcgctg gtctgtagaa ctctcctgac atataccaag tttccataag tgggtggatg 2520  
ggttcctgag ctctctactg ttaatagaac ttgctctctc gcaggccaat gcctcaccag 2580  
gtgattgaag cagagaaact taggtggtga aaggagaaga tggggcctgt cctgagagtt 2640  
tctgttcctg agatgctaga ggcagagggt ccctaaactt tcctgagtcg gcagacatcc 2700  
cctctggaga agaggttggc cccagagtcg aacatcctct gatctacctg atcctgctgc 2760  
ccttccattc cacttccca catctgttct ttctggctgt gtttactccc ctattaaaaa 2820  
aacaaaacca g 2831

&lt;210&gt; 1273

&lt;211&gt; 1772

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 1273

aactctggga gaggagcccc agccttgggg ttcccaagtg ctttcattca gtgatcagga	60
ctgaacacag aggactcacc atggagtttg ggctgagctg gattttcctt gttgttactt	120
taaaagggtgt ccactgtgaa gtgcagctgg tggagtctgg gggaggcttg gtgaagccgg	180
gggggtccct cagactctcc tgtgtagcct ctggattcac tttcagtaat acttgatga	240
cttgggtccg ccaggctcca gggaagggcc tggagtgggt tggacgtatt agcactgaca	300
gtgaagggtgc gacagtagac tacgcggcac ccgtaaaagg cagattcacc atctcaagag	360
atgattcaaa gaagactttg tatttgcaaa tgaacagcct gcaagtcgag gacacagccg	420
tttattactg ttccacaggc ccgtcccgtg taccgggaac gcaaagatac tttgacttct	480
ggggccgggg aaccgggtc accgtctcct cagcttccac caagggccca tcggtcttcc	540
ccctggcgcc ctgctccagg agcacctctg ggggcacagc ggccctgggc tgcctggtca	600
aggactactt ccccgaaccg gtgacggtgt cgtggaactc aggcgcccta accagcggcg	660
tgcacacctt cccggctgtc ctacagtcct caggactcta ctccctcagc agcgtggtga	720
ccgtgccctc cagcagcttg ggcacccaga cctacacctg caacgtgaat cacaagccca	780
gcaacaccaa ggtggacaag agagttgagc taaaacccc acttggtgac acaactcaca	840
catgcccacg gtgcccagag cccaaatctt gtgacacacc tccccgtgc ccacggtgcc	900
cagagcccaa atcttgtgac acacctcccc catgcccacg gtgcccagag cccaaatctt	960
gtgacacacc tccccatgc ccacggtgcc cagcacctga actcctggga ggaccgtcag	1020
tcttcctctt cccccaaaa cccaaggata cccttatgat ttcccggacc cctgaggtca	1080
cgtgcgtggt ggtggacgtg agccacgaag accccgaggt ccagttcaag tggtacgtgg	1140
acggcgtgga ggtgcataat gccaaagaaa agccgcggga ggagcagttc aacagcacgt	1200
tccgtgtggt cagcgtcctc accgtcctgc accaggactg gctgaacggc aaggagtaca	1260

agtgcaaggt ctccaacaaa gccctcccag ccccatcga gaaaaccatc tccaaaacca 1320  
 aaggacagcc ccgagaacca caggtgtaca ccctgcccc atcccgggag gagatgacca 1380  
 agaaccaggt cagcctgacc tgcctgggtca aaggcttcta cccagcgac atcgccgtgg 1440  
 agtgggagag cagcgggcag ccggagaaca actacaacac cacgcctccc atgctggact 1500  
 ccgacggctc cttcttcctc tacagcaagc tcaccgtgga caagagcagg tggcagcagg 1560  
 ggaacatctt ctcatgctcc gtgatgcatg aggctctgca caaccgctc acgcagaaga 1620  
 gcctctccct gtctccgggt aaatgagtgc gacggccggc aagccccgc tccccgggct 1680  
 ctcggggtcg cgcgaggatg cttggcacgt acccgtgta catacttccc gggcacccag 1740  
 catggaata aagcaccag cgctgccctg gg 1772

<210> 1274

<211> 2171

<212> DNA

<213> Homo sapiens

<400> 1274

agagaattcc agactgagcc agagtagcga agtcccagta aaggggcaga gagtctgcta 60  
 cctgttgagt ctgtttggcc tataaataaa cccaagggg ttagagctag caaatgcctg 120  
 ctagttggtg aagctgagat accctcctcc cagggtggtg ggtaatgagg tcgtgggagg 180  
 aagagaagca gcagcagctg tgagggggag tccctcttcc ttcatcagtc cctggtctga 240  
 ctccagtgat cagaggaggc aggacacaga attccaacg ctcaggatcc agtcatcca 300  
 aatccagccc aactcagcaa agtgaccaga gggttctagg aggataaact acagaagcag 360  
 ccttattgag gtacaattca tgtgcttggtg gggttggtg gcacaatctg tgtctgggct 420  
 aaggaaagca gacttggcac caacattaac cctgacagat ccaggcatct attccaggaa 480  
 ctggaagcca agcgcaacag gtgcttggag gtcatcatga tcagcccaga cccaggccc 540  
 tcccctgggt tggcccgggt ggctgagagc tatgaggcca agtgtgagcg caggcaagag 600  
 atccgtgaaa gccgccgtg ccgtcccaat gtgaccactt gccgccaggt ggggaagacg 660  
 ctgaggatcc aacagagaga gcagctccag agagctcgac tgcagcagtt cttcaggagg 720

aggaacctgg agctagagga gaagggcaaa gcgcagcatc cccaggccag ggagcaaggg 780  
 cctccaggc ggccaggaca ggtgactgtc ctcaaggaac cttgtcttg tgccagaagg 840  
 atttcttctc ccagagagca ggtgacaggc accagctctg aagtctttcc agcccagcat 900  
 cctcctccct caggcatctg cagggatctg tctgaccacc tctcctcaca ggctgggggc 960  
 cttcctccac aggacactcc catcaagaag ccacccaaac accaccgtgg tactcagaca 1020  
 aaggcagaag gaccaacaat taagaacgat gccagtcagc aaaccaatta cggagtgtga 1080  
 gttctggata aggaaatcat ccagctttct gattacctca aagaggccct acaaaggag 1140  
 ctggtcctaa aacagaaaat ggtgattctc caagacctac tgtccactct gattcaggcc 1200  
 tctgacagct cttggaaggg acagcttaat gaagacaaac tgaaggggaa actgagatcc 1260  
 ttagaaaacc agctatacac ctgtaccag aaatactccc cttggggcat gaaaaagta 1320  
 ctactggaga tggaagacca gaaaaacagc tatgagcaga aggccaagga gtcactgcag 1380  
 aaagtgtgag aggagaaaat gaatgcagag cagcaactac agagcacaca gcgatccctg 1440  
 gccctggcag agcagaagtg tgaagagtgg aggagccagt atgaggctct gaaggaggac 1500  
 tggaggacc ttgggacca gcacaggag ctggagagcc aactccacgt gcttcagtcc 1560  
 aaactgcagg gagcagatag cagggactta cagatgaacc aggccctgcg atttttggaa 1620  
 aatgagcacc aggaactgca ggccaagatt gaatgcctgc aaggggacag agacctgtgc 1680  
 agcttgata cccaggacct acaagatcaa ctaaaaaggt cagaggcaga gaaactcacc 1740  
 ctggtgacca gactacagca gttgcagggt ttgcttcaaa atcaatcctt acagcttcaa 1800  
 gaacaggaga aactcttaac aaagaaagat caggctttgc ccgtgtggag tccaaagtcc 1860  
 ttccctaacg aagtggagcc tgagggtaca gggaaggaga aagactggga tctcagagac 1920  
 cagctgcaaa agaagacttt gcagctccag gccaaggaaa aggagtgcag agaactgcat 1980  
 tcagaattag gcaacctcag tgacgagtat ctctcctgcc tgcgtaagct gcagcactgt 2040  
 cgagaagagc tgaaccagag ccagcagctg cctcccagaa ggcaatgtgg gcgatggctc 2100  
 ccagtgtga tgggtgtgat tgctgcagca ctggcagtgt tcctggccaa taaagacaac 2160  
 ctgatgatct g 2171

&lt;210&gt; 1275

&lt;211&gt; 4389

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 1275

agctaggagg	gttgctccgg	gcttggtgct	cactgcgact	tcccgcgcag	ggcccggtcg	60
gactaggacc	cgcggcctga	gagacgctgg	aggatgcgga	cgcggaggcc	gcctggggta	120
gcggcggcgg	gagtcctggc	gctctgcagg	tcagaagttg	agcagcaggg	gcctaggagg	180
gctcgaagcc	ttcacagcga	tggcagagaa	gcgacccctg	agaaccctgg	ggcctgtgat	240
gtatggcaag	ctgccccgct	tagagacaga	ctccgggctc	gagcacagcc	tgccccactc	300
tgttggtaac	caggatccct	gcacctaca	ggggctctac	ttctcctgcc	ccatggcggg	360
tactcctaag	gccgagtctg	agcagttggc	gtcctggacc	ccataccac	ccttgtactc	420
taccggtatg	gcaggacccc	cacttcaggc	agacaacctg	ctgaccaact	gcctgttcta	480
ccgctcgcca	gcagaaggcc	ctgagaagat	gcaggactcc	agccctgttg	agctcctgcc	540
cttcagtccc	caggctcact	cctaccagg	cccaccactg	gcagcaccca	aacctgtcta	600
ccgcaaccct	ctgtgctatg	ggctctcaac	ttgtctgggg	gaaggagcag	tgaagaggcc	660
actggatgtt	gactggactc	tggcgactgg	gcccctgttg	ccctcagctg	accacacctg	720
ctctctggcc	ccagctccta	gcaagggcc	gactctggat	ggcaccttct	tgcggggggt	780
gccagctgag	gggtccagta	aagactcctc	aggagacttc	tcccatgcc	agcccttctt	840
ggagaaatat	cagaccatcc	acagcacggg	cttcctggcc	tccaggtaca	caggctccta	900
ccctaggaac	tccaagcaag	caatgtctga	ggggccctca	agtccttgga	cccagctggc	960
ccagcccctg	gggccaccct	gtcaggacac	cgggccacc	cactaccac	cacccacca	1020
cccaccacc	cacctccac	aggccctgcc	ttgccctcca	gcctgtcgcc	accagagaa	1080
gcagggcagc	tacagcccag	cactcccact	gcagcctctg	gggggccaca	aggggaccgg	1140
gtaccaggct	ggtgggctgg	gcagccccta	cctgaggcag	caggcagccc	aggcacctta	1200
cattccccca	ctggggctgg	acgcttacc	ctaccctct	gcccctctcc	cagcacctc	1260
tccaggcctc	aagctggagc	cgcctctcac	tccacggtgc	ccattggact	ttgccccca	1320
gacactgagt	tttccttatg	cccgggatga	cctctctctc	tatggagcat	cccctgggct	1380
tggagggaca	ccaccttccc	agaacaatgt	gagggtgtg	ccacagcccg	gtgccttcca	1440
gagggcacgc	cagcctttgc	cagcgagcca	gccctgctca	gagcctgtga	ggcctgcaca	1500

ggaagccgaa gagaagacct ggctgcccag ctgcaggaaa gagaagctcc agccccggct 1560  
cagtgcagcac tctgggcccgc ccatcgatcat ccgagacagt ccagttccct gtaccccccc 1620  
agcactgccc ccctgtgccc gggagtgcc a gtctcttcca cagaaggagg acgcaaggcc 1680  
accagctctt ccaccaatgc ctgtcattga caatgtcttc agcctggccc cctaccgtga 1740  
ctatctggat gtgccggcac ccgaggccac aactgagcct gactctgcca cagctgagcc 1800  
tgactcagcc ccagccacca gtgaaggcca ggacaaaggc tgcaggggga ccctgcctgc 1860  
ccaggagggc ccctcaggga gtaaaccctt aaggggctca cttaggagg aggtagccct 1920  
ggatttgagt gtgaggaagc ccacagcaga ggccctccct gtcaaggctt cccgttctgt 1980  
ggagcatgcc aagcctactg cagccatgga tgtgccagat gtgggcaaca tgggtgcaga 2040  
tctgccaggc ctgaaaaaga tagacacaga agcaccaggc ttgcctgggg tgccagtgc 2100  
cacagatgcc atgccaagga ccaacttcca cagctctgtg gccttcatgt tccgaaagt 2160  
caagatcctc cgtccggcac ctttgccctgc agccgtggtc ccgtccacgc ccacctcagc 2220  
tcctgctccc acacagcctg caccacccc cacatctggg cccattggac tgcggattct 2280  
cgctcaacag cccttgtctg tgacctgctt cagcctggca ctgcccagcc ctccagccgt 2340  
agctgtggcc tcccctgccc ctgctccagc tccatcccct gctccggctc gagctcaggc 2400  
tccagcttca gcccgggatc cagctccagc tccagctcca gttgcaggcc ctgctccagc 2460  
atctacttca gcccagggg actccctgga gcagcatctt acaggactac atgcgtccct 2520  
gtgtgatgct atttctggct ccgtcgccca ctctcctcca gagaagcttc gcgagtggct 2580  
agagacggct gggccctggg gccaggctgc gtggcaggac tgccagggtg tgcaggggct 2640  
gctggccaag ctgctgtctc agctgcagcg ctctgatcgc acccaccggt gccccttccc 2700  
ccatgtgggt cgagctggcg ccatcttctg gccattcac ctggtgaagg agcggtcttt 2760  
ccctcggtg ccaccgctt ctgtggacca tgtgctgcag gagcatcgtg tggagctgcg 2820  
gcccaccag ctgtcggagg agcgggcaact gcgggagctc gccctgccag gctgcacctc 2880  
acgcatgctg aagttactgg cgctgcgcca gctgccggac atttaccg accttctcgg 2940  
cctgcagtgg cgcgactgtg tacgccgcca gctgggtgac tttgacactg aggctggagc 3000  
tgtgtcctcc tcagagccca ctgtggccag agatgagcca gagagcctag ccctggctca 3060  
gaagtaccg gcccgaagg tcaggaagcc aggcaggaag ccaccaacc ctggcccga 3120  
gaaagcagag gcagctgctg gggaagagtc ctgtggtgcc tcccctacc ctgctaccag 3180  
tgccagccca cctggcccca cactgaaggc ccgttccgc agtctgctgg agaccgcctg 3240

gctcaatggc ctggctctgc ccacctgggg ccacaagtcc tcaagaccag accagccctc 3300  
 accctgccc cagctgctgg acagccagag ccatcacctg tagcactggt tgccagtgt 3360  
 gtgtgtatag cagtcaactt ccacctttcc cttctgcctg cccagctgcc ccggggccac 3420  
 gagtggatgc tggggctgtg gctgctcccc tggaggggtt ccatctctga ccctgtggcc 3480  
 cattcagggt gggctgaaga gccctgagc ttttaacgtg agggctctta ttggatagga 3540  
 ctactcccta tttcttgcc agagaacaca catgggcttt ggagcccgac agacctgggc 3600  
 ttgaatccc gctcgtgttc ttgctgcagg acctgggcaa gaaacttcac ctctgctgag 3660  
 ccctcattcc ccatgtgtaa aatgggacaa cgcaacctac ctcacagggt tgttgtgggg 3720  
 atgtgcctg atacataccc tgtcaccatt tggctctctg ttcctctctg ggacagggcc 3780  
 tagaattgga ggcagagaac cttcctatag aaagtcttcg tgtgtcctag gacttggcta 3840  
 tcgtagagt gtaccttagg cagtggatgt gactcacact ttcaggagtc accccccagc 3900  
 atttgggggtt ggggttgccc tactccagcc tggagctccc tgaggagacc tgcactccct 3960  
 gctcccaatc cccgctactg gtgcagggat gcagcctgga gctggcgctc ttgttctggg 4020  
 cctgctgtg ccccccacc aggaggcccc aggcctgtcc tgaattgaca tcagtgttc 4080  
 cctgaactgc ctccccacc cctggcatta tcccaggaaa cttatgtttt ctagaagcta 4140  
 agcagctgt gggactcagg gactgggtgca ggtaggctga gtggcagctc agtcctagaa 4200  
 ggtctctgaa gatctggact gagggccctg ctactcccca agccagagcc catcagccag 4260  
 gcctgctgtg agccacctgc ctgtggagt ctgagctcaa ccaaaggctg gcaagctctg 4320  
 ggcctcattt aagggtattt gatgagccga tgggccctgg aggcagccca ttaaagcatc 4380  
 tggctcgtt 4389

<210> 1276

<211> 3164

<212> DNA

<213> Homo sapiens

<400> 1276

cagaggtcac caccacgcag cagagacagg tgtcctgtgg gcggtgcaga ggtcaccacc 60

acgcagcaga gacaggcgtc ctgtgggcag tgcagaggtc accaccacgc agcagagaca 120  
ggcgtcctca caggcagtgc agaggtcacc accacgcagc agagacaggc gtccccacgg 180  
gcagtgcaga ggtcaccacc acacagcaga gacaggcgtc ctgtgggcgg tgcagaggtc 240  
accaccacgc agcagagaca ggcgtcctgt gggcgatgca gaggtcaccc cacgcagcag 300  
agacaggcgt ccccacgggc agtgcaaagg tcaccaccac acagcagaga caggcgtcct 360  
gtgggcagtg cagaggtcac caccacgcag cagagacagg cgtcctgtgg gcagtgcaga 420  
ggtcaccacc acgcagcaga gacaggcgtc ctgtgggcga tgcagaggtc accccacgca 480  
gcagagacag gcgtcctgtg ggcgatgcag aggtcaccac cacacagcag agacgggcgt 540  
ccccacaggc agtgcagagg tcaccaccac gcagcagaga caggcgtccc cacgggcagt 600  
gcaaagggtca ccaccacaca gcagagatag gcgtcctgtg ggcgatgcag aggtcaccac 660  
cacgcagcag agacaggcgt cctgtgggcg atgcagaggc caccacacgc agcagagaca 720  
ggcgtcctgt gggcgatgca gaggtcacca ccacgcagca gagacgggcg tccccacagg 780  
cagtgcagag gtcaccacca cacagcagag acaggcgtcc ccacgggcag tgcagaggtc 840  
accaccacgc agcagagaca ggcgtcccca cgggcagtgc agaggtcacc accacacagc 900  
agagacaggc gtcctgtggg cagtgcagag gtcaccacca cgcagcagag acaggcgtcc 960  
tgtgggcagt gcagagggtca ccaccacgca gcagagacgg gcgtcccccac aggcagtgca 1020  
gaggtcacca ccacacagca gagacaggag tcctgtgggc agtgcagagg tcaccaccac 1080  
gcagcagaga caggcgtcct gtgggcagtg cagaggtcac cactgtgagc cagactgtcc 1140  
tcggccttcc ctgggtttag caccggatga aaaccatgtg ctttgagccc tggaaagaca 1200  
atcagcccag ccagagccag agcctgaaac aggcagcccc cagggcgcag ctgcaggaag 1260  
ccgcatcctc tcgtgggctc cagcaaggcg ggggacgctg tgttcctca gtggcttctt 1320  
ggtgcccctt gatgtccagg agtgtgaggt gaggtgaggg ctctgagctg ggaagctgac 1380  
aagtcaggga gaatgccagg ccagacgcat cggcctgcgg gggctggagc agagcctggc 1440  
actcactgta cttgtccgt ctcactccgg ctgctgcgct ggcccagggc tgtccacccc 1500  
aggcgtgtgg cagaacaagc ctggctccca gagctccct caggccctgg agcggcaggc 1560  
agtgggcatc ctcagcccaa cccatgtccg tgccatgcac aggatagctg agcttgccgc 1620  
tgccacaggg tgtcagcggg ttggggcaac agacagggcc ccagtgtgg tggccaggct 1680  
ggctgtatgt gtgggttggc tgccacctga ctgcactgaa acaagaacca ccccccccc 1740  
acccccact gctctccacc cggttcgggg ccggccctgg ctgggcttcg tggatcctca 1800

ggttgtgcgg gtcattggctt cctggggctg ggccagagcc atcatggagt cagcacgggt 1860  
ccttgcagac acaggcgggg caggcggcgc ctctccacct tccttgcctc aagctgcggg 1920  
gacagcacca aaaagccacg tggaccaga tggcctcgcc ggacttcctg actcagggt 1980  
gtctccagcc tacatccac cggggctgca cgcacagacg gcttctcctg gagccctgga 2040  
gcatttcccc cgtgtttcgg ccaggttttc tgctttaaat gagtttattt cagtcgtgtc 2100  
aaagtgaagg tctctttcac tcaggacgtg atcaatggcg tggccatcaa gtcacagcgt 2160  
tgaaggcaac agatggcctt taatgacgt attttaaaaa ataatttccc ctttctttcc 2220  
ccatcctggt tttgtgagga cagagcatcg gcatttcagg gcgggggtgg gtctgcctac 2280  
tctgtggcca gcacgcagca gatccctgta ggtggagccc cacagctctg tgtcccggca 2340  
cctctgtgcc acctgcacag gggcagaggg tgggttttcc gtgacgccc ctggagccaa 2400  
accaccgttg atcacttct cctgatgaac tgggctgtgt tgggtgcag aggtctcgg 2460  
tgcgtatgtt ctgggaattg agccagggtc cttgttctg ggaattctca gacctggaca 2520  
atatcagtag aggagaccac ttgattttta gtttgacccc tggagaattg aaaagctgga 2580  
aatctgtttt ctgtacctc cccctcccaa cctcccccg actccctacc tggcttctgt 2640  
ctggagagga cgtctgcatg gctgtcctgg ggtggctgca ggtgtgcaga tgctaccgc 2700  
cactgtctcc ccattcctgc tggagcccac tttggtgtga gtgtttgcct ggcagaggca 2760  
tcgcaggccc acgggaggat aaagagaagc cagagaactc ataattccaa aagctggcaa 2820  
agttaaaacg tgatgtctgg ccgggtgcag tggctcacgc ctgtaatccc agcactttgg 2880  
gaggctgaga tgggcagatc acctgaggtc aggagtcca gaccagcctg gccaacatgg 2940  
tgaaatcccg tctgtactaa aacacacaca cacacacaca cacacacaca cacacacaca 3000  
cacacacaca taaaaattag caggtatgct ggcgggcgcc tgtaattcca gttattcagg 3060  
aggctgaggc aggagaattg cttgaacctg ggaggcggag gttgcagtga gccaaatcg 3120  
tgccattgca ctccagcctg ggcaacagag tgagactcca gctc 3164

&lt;210&gt; 1277

&lt;211&gt; 3666

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 1277

actgcacagc	cagatgctgg	ctgggcaagc	actcgcgttc	ttgggcctga	cctggggcac	60
tttccagagc	ctggccatcc	cccggattac	agaatggcct	ctcctgttct	cagttacaca	120
gaatataagt	tgctgatttc	ccaggtttcg	gatcgtttctg	tctccccctt	ctcggaatgt	180
gagctcctgg	agagggcctt	gcctgcagga	gccacaggaa	ccggaacatt	tttaacagct	240
tctgccggcc	acgccccgtg	tccatgtcca	ggtcagtcct	ggaggccctg	acgtcctcca	300
ctgccatgca	gtgtgtcccc	tctgacggct	gcgcgatgct	cctgcgtgta	cgcgccctcca	360
tcacctgca	tgagcgctg	cggggcctgg	aggcctgtgc	catgagcctg	gacacccagg	420
agacgcagt	tcagagcgtg	tgggtggcca	gggcctccca	ccggcagcag	agggggcggc	480
agctccaagt	gcactttggc	tgctttgcgg	tgagcgtggc	ccagcacctc	tatgtcaccc	540
tgaggacat	ccctcatttc	tgcggggtcc	agctggacca	gaggcacctc	gtggaagcgg	600
ggaagctcag	ctactgggtg	gaccggaggc	gcaaggcgat	tctggtgcaa	gtgcccaggg	660
cctccgggag	ccccgactac	tacctgcgac	tctgcctcaa	gcggttcacc	tgcgaggacg	720
ccggcgcccc	tgtgcgagtg	accgccaaca	gcgtccccca	ggccgtcttc	ctgccctaca	780
gccaggagct	gccgtgcctg	tgcttgagg	gctggtctgc	gaccctgac	gcggtgcgga	840
tccagatctg	cccctttgaa	aacgacactg	aggcactgga	ggtgctgtgg	gacacggtct	900
actaccaccc	ggagagccag	acactgagct	gggagcccg	ctgccctgtg	agtggccatg	960
tgagcctgtg	ctggcgcccc	gggcccgggg	ccggctgccg	taagctgcag	caatccagcc	1020
agctggtgca	tcgcagagtg	cagtaccgc	tggtggacac	ccagccccag	ctctgcctga	1080
agttctctac	cagttggggg	tcttgggtgc	ggtgcccttt	cgaacagcgt	cgcttcccaa	1140
ccccgcccac	ttccaggtgc	acctgtgtca	caggaggaag	tcacagctcc	ctgcctgcca	1200
acgcacactc	caggccagcc	cgctcccttc	agcctcaggt	gacctggcag	ccgcccctgc	1260
ttttgccttc	ctagaccttc	ccagggagga	ggcctgtgcc	ccaggcatct	gcatccaggg	1320
ctggaggacc	gatgtacact	tctccgtccc	ccagcagctc	tgcaacctcc	gctccagtgg	1380
gtgcccctct	ctcagggggc	gcaggatgcc	gaggactaga	cctaggcctc	ccacggcagg	1440
ctgggcgtgg	cgtgcactga	acaggagact	gggtggggga	aacggggaga	ccatccggcc	1500
ctgagtcagg	tcaggcttct	gcgccaaacc	caggtctgtg	cccagcactg	ccctccagcc	1560
ttgcatttcc	ctccaccaca	caccgtggg	cctcccgcac	gccaccctg	gtctcactgt	1620

cactggcctt gcctcctcct ccctgggggt ccaccttccc tgatcagagc tctggttcca 1680  
accgccagtg acttgggatg tccctttgcc caccagccac tgaggcccag gctcccagga 1740  
cccagggtag atcaggacag gactctgccc agtggacaga actaagcaca tgtggcctgg 1800  
gtgtggtcag gagcgtggct ctgccttgga gtccaggaag ggtcagagct ggcactccta 1860  
cctgcacccc tccctgtgag caaaagagct tgcctagctt cgggtgggggt gaaccgcaac 1920  
agccacagag gtgggagggg tgggaggggg tggataggac agcctggcac ccagggcctc 1980  
tggagaccct ttccaggag caccagtggg ccaggcaggg gtctctggaa tgtctcctca 2040  
gtcagctga gccacagcca ttccagggca gcctgtgcc cacaggacat gcccagggcc 2100  
gtggcagtag ccgcagacct tcagctcccc ctctctccag caagactttt tggccaagcc 2160  
taggtcccc tccctagcaa aggtcacctc cagcagatca cagactaaag gggcaatggc 2220  
cacctgctgg tcaggtgtcc ctggggctgg cacctgccac tgtggagtgc ccatgctatg 2280  
ctgggcaagt ccacggcccc agggacaggc ctggaggcag caggaggacc gggcctggct 2340  
caggtggggg gatctggggg tcatacacac tcctcttggg gccagggtgg gctcctcctt 2400  
cacttgtctg ctgagcctcc ctgcagatgg aaggctgctg tccacagcca ctggcacccc 2460  
aggactgggc agccccctcc ccttcctcct catgtctcag cctcgcacag tgggggcagg 2520  
gctgggaggt ggtgtcccag ccagtaccac ccctacgtct ctctccagct gcacccaccc 2580  
acatgggacg gcagcctgag gccaggaatc tcctcacgaa caagtaggtg ccagggacac 2640  
attgctgggg ggcaggaggc caaggcacag cctcggacag ctgagccagg cccccctccg 2700  
agagtgtggg gtgttctcac ctgactgtgg ggcctaggca cctgctggct gtcttggggc 2760  
tacagctcca tggggccctc aggggctctg ggtcacataa aagacctca gccctgtcct 2820  
gagtcccctg ggaacagcag gagctgggtg ggctaccctt tccccggatg gcccaggtgc 2880  
tggaccccag cctcctctc agacaattca tggatcatggc cactgtccct ggccctgaag 2940  
acaaggccct ggcagctgcc tggagcttcc ccagtgtctt ggggtgcagg gtgcaacccc 3000  
acccttcctg tagctgatca ggcccagggt ggtcaaggat caccacagtt tctgcccagg 3060  
gcaccccaaca ctggctggag tccacctctc ctgtctgtgc atccttgggt gctgagcttc 3120  
actggggcac ccgccccact cggaccctc cagagggtct cagcttcccc agatcccagc 3180  
cccactcacc cagcaacggt cagtcacttc ctgtgtgtct agaggccacc tgcctggggg 3240  
ccacctgctg ggatgtgcgg ttctcagaca ttccaagtgg cacatccagg tcccagccag 3300  
gggtgcccag cagtggcctg tgcagtgggc catggggtcg gcccttgaag acttctcgtg 3360

tgggtcacgt aggtctctccg gcttccccgc tgagccaccc tctggagcct ggacatcgtc 3420  
 tcacctgagt gctgtgcagg accacatgcc cagcctgtcc cagcgggtggt cgcaccccat 3480  
 ctgcagatgc actcccaccg cagtctgggc ccaggctgcc ctcttccagc tggccgtggg 3540  
 ccgctggggc ttcttttccc tcttgcaaca gaggctgcta tgtcccacag actggagagg 3600  
 gggctgcaga gcgagtaagt ccccgccact cagtaaacad tgggtccagg gtagctgtta 3660  
 aaatgg 3666

<210> 1278

<211> 1902

<212> DNA

<213> Homo sapiens

<400> 1278

agattctccc cagacgccga ggatggccgt catggcgccc cgaaccctcg tctgtctact 60  
 ctcggggggc ctggccctga ccagacctg ggccgggctcc cactccatga ggtatttcta 120  
 cacctccgtg tcccggcccc gccgcgggga gccccgcttc atcgccgtgg gctacgtgga 180  
 cgacacgcag ttcgtgcggt tcgacagcga cgccgcgagc cagaggatgg agccgcgggc 240  
 gccgtggata gagcaggagg ggccggagta ttgggaccgg aacacacgga atgtgaaggc 300  
 ccactcacag actgaccgca gatacctgga gaacgggaag gagacgctgc agcgcacgga 360  
 cgcccccaag acgcatatga ctcaccacgc tgtctctgac catgaggcca ccctgaggtg 420  
 ctggggcctg agcttctacc ctgcggagat cactctgacc tggcagcggg atggggagga 480  
 ccagaccag gacacggagc tcgtggagac caggcctgca ggggatggga ccttccagaa 540  
 gtgggcgtct gtggtggtgc cttctggaca ggagcagaga tacacctgcc atgtgcagca 600  
 tgagggtctg cccaagcccc tcacctgag atgggagccg tcttccagc ccaccatccc 660  
 catcgtgggc atcattgctg gcctggttct ctttggagct gtgatcgctg gagctgtggt 720  
 cgctgctgtg atgtggagga ggaagagctc aggtggggaa gggatgaagg gtgggtctga 780  
 gatttcttgt ctcactgagg gttccaagac ccaggtagaa gtgtgccctg cctcgttact 840  
 gggaagcacc atccacaatt atgagcctac ccagcctggg ccctgtgtgc cagcacttac 900

tcttttgtaa agcacctgtt aaaatgaagg acagatttat caccttgatt acggcgggtga 960  
 tgggacctga tcccagcagt cacaagtcac aggggaaggt ccctgaggac cttcaggagg 1020  
 gcggttggtc caggaccac acctgctttc ttcattgtttc ctgatcccg cctgggtctg 1080  
 cagtcacaca tttctggaaa cttctctgag gtccaagact tggaggttcc tctaggacct 1140  
 taaggccctg gctcctttct ggtatctcac aggacatttt cttcccacag atagaaaagg 1200  
 agggagctac tctcaggctg caagtaagta tgaaggaggc tgatgcctga ggtccttggg 1260  
 atatttgtgt tgggagcccg tgggggagct caccaccccc acaattcctc ctctagccac 1320  
 atgttctgtg ggatctgacc aggttctgtt tttgtcctac ccagggcagt gacagtgcc 1380  
 agggctctga tatgtctctc acagcttgta aaggtgagag cctggagggc ctgatgtgtg 1440  
 ttgggtgttg ggcggaacag tggacgcagc tgtgctatgg ggtttctttg cattggatgt 1500  
 attgagcatg cgatgggctg tttaaagtgt gactcctcac tgtgacagat acgaatttgt 1560  
 tcatgaatat tttttctat agtgtgagac agctgccttg tgtgggactg agaggcaaga 1620  
 tttgttcctg cctttccctt tgtgacttga agaaccctga ctttgtttct gcaaaggcac 1680  
 ctgcatgtgt ctgtgttctt gtaggcataa tgtgaggagg tggggagacc accccacccc 1740  
 catgtccacc atgacctct tcccagctg acctgtgctc cctcccaat catctttcct 1800  
 gtccagaga ggtggggctg aggtgtctcc atctctgcct caacttcatt gtgcactgag 1860  
 ctgtaacttt ttccttcct attaaaatta gaacctgagt at 1902

<210> 1279

<211> 2611

<212> DNA

<213> Homo sapiens

<400> 1279

agttctaccg gcatcgggcg ctgagggtga gaagggacca caagcagcag caggtctcag 60  
 tgcttgcatt attcctgctc accggtgggc tccgggcacg cccggcaggg tcctgggggc 120  
 gcaggcaagg ggacgtaggc agagtgtctc ggccagcatg gagggactgg tcttccttaa 180  
 cgccctggcc actcggttgc tgttcctgct gcactcgtg gtcgggggtct ggcgagtgc 240

cgaggtgaag aaggagccgc ggtactggct gcttgcgctg ctcaacctct tgctcttcc 300  
ggagactgcg ctcacctca agttcaagcg cggcagaggc tacaaatggg tttcaccagc 360  
catattttta tatctgatta gcatcggtcc atcattatgg cttcttgaat tgcacatga 420  
gacccagtat tgcagtatcc aggctgaagg aacatcacag aataccagca gaaaagaaga 480  
cttcaatcaa acattgacat ccaatgaaca aaccagtaga gctgatgatc tcattgagac 540  
ggccaaagtt tttgtgaata acttatctac agtatgtgag aaagtttgga cattgggact 600  
ccatcagaca ttcctgttaa tgctaataat tggaagatgg cttctacca ttggaggcgg 660  
gatcactcga gatcaactct ctcaacttct tcttatgttt gtggggacag cggtgacat 720  
actggaattc acaagtgaga ccctagaaga acaaaatgtg aggaatagtc ctgcactagt 780  
ctatgccatc cttgtttatat ggacttggag catgctgcag tttccacttg acctggcagt 840  
acagaacggt gtgtgccctg tgtctgtgac agagagggga ttccccagcc tgttcttttg 900  
ccagtacagt gccgatctgt ggaacatcgg aatcagcgtc ttcatacaag atggcccctt 960  
ccttgctgtg cgtctcatac tgatgacctt tttcaaagt atcaatcaga tgctggtgtt 1020  
ctttgccgcg aagaacttcc tcgtgggtgg gtgcaactc taccgcttgg tgggtgctggc 1080  
attggcagtc cgtgcttcgt tgagaagtca gtcagaaggc ctgaaaggag aacatggttg 1140  
ccgggcacag acctctgaga gtgggccctc tcagcgggac tggcagaacg agtctaagga 1200  
gggcctggct attcctttgc ggggctcccc agtcacctc gacgactccc accacacccc 1260  
ttagttattg attgacagtg gtctgcggct agaacctgac tccctggttc ttcttacagg 1320  
gaggatcctt tttctctcc aaccttggcg tataataatt ttcaaaagaa caacataaaa 1380  
aggtgatcctt aaaccaaagc tgaggaattt tctttttca actgaataga aggaactttg 1440  
attagtgact attgctacaa cttctgtgtg atggtatcag atgttatagt tgttcaacga 1500  
ctaagtgatt tgtttgtctt gaactgtttg aaaagctatg gaagaggtta cagtgacatg 1560  
ccctcgaaag atttggtgca gaccaactgt cgcggctgtt acctggaaat agagaagctt 1620  
tgaactttgc ctccattgtc agactatttc gtctgatcct ttctgcaatg ttcctctgac 1680  
atcaaaaaat gtacattcag tgaatgcaga acaaatgaag ggaaaagtgc ctttaaaatt 1740  
acctcactgt gggctggaag aagcgaaaat ctctgccag cttccgtatc atagagagcc 1800  
ctattcatcg ctgccaggc cttccagga aatcatttt ttctgggctg atgttgtatt 1860  
ctgccatggc gcatatgttc ttacagaaat tttattgctt ttgtcttggg tgctacaaaa 1920  
ttcacagcaa gccattttgg ttacatatct actggttgca aggcaggaaa tattggtgaa 1980

atgctagcaa agtcacaatt tctactctga acatgatttg cagtgttcat cagtatTTTT 2040  
 ctgaaccctg ctttaccatt ttctatatg ccaagttgaa tcatgtgggc tgatgcaggg 2100  
 aagctctgaa gcagtgaata aaggtgtttc gggccctgag agaaagaatt gcaaatgcca 2160  
 ggcatctgtc cactttagcc ctctccaat gctaagaaag agggatgggtg acgtatacta 2220  
 cagagacgca aatgaaacac caaacagtct tgaattacaa gaaaaaaagg ggattTTTT 2280  
 TTTTTctaa tttcagactt ggctTTTTac ttagaggaca ttctgatttg ctctcagaaa 2340  
 catctgattt ggggttaaac taggcggctg gaggatgttt acagctttga ggcttcaaat 2400  
 aagtttccat atgcagggag taactttaaa caatgtttga ataattaact gctaagtctt 2460  
 atattttatg tgtatctatt tcctcctctg tctctttctt actagaatac catataagaa 2520  
 tattttctct gcagtattta tatttatact attttgctat gagtggcctt tgtattttat 2580  
 tatatgcatt aaatagtgtg tgcacaactt t 2611

<210> 1280

<211> 2969

<212> DNA

<213> Homo sapiens

<400> 1280

attgatggcc tccagatgcc gacacgagag ggatttctga tcttgtttac aacggatttg 60  
 gaggtggcta actatcctga attcccacaa gtgagtacaa accccgaccc ccatgggggtg 120  
 ttgtcctgga ctgttttctg tggatgggtg ttccaattt cttttctttt ttttcgtttc 180  
 ttttcttttt ttttaaactt ttgagacagg gtcttgctca gttgccagagg ctggaatgca 240  
 gtggcacaat ctgagctcac tgcagcctca acctcctggg ctcaagtgat cctcccacat 300  
 tagcctccag catatctggg actgcaggca cccaccacca tgcccagcta attttttttt 360  
 tttttttttt gagacagggt ctactctgt ctcccacact ggagtgcagt ggcacgatct 420  
 cagctcactg caacctctgt ctctgggtt caagtgatc tcccgcctca gcctcccaag 480  
 tagctgggaa tacaggtgtg caccaccaca cccggttaat ttttgtattt ttactagaga 540  
 cgaggttttg ccatgttggc cagactgggtc tcaaactcct gatctcaggt gatcagccca 600

ccttggcctc ccaaagtgt gggattacag gcatgagctg ccgtgcccag ccttgcttcc 660  
cttatcatct ctccagggct ccctgtgtga ggggcctggg acccctcagc caccacaagc 720  
ttcagagggg gagtgctgcc acctaggggc aaagaaggaa actgccacag cttggcccag 780  
gccacccgga cacgttatga caaaaacatt tattgagcac tttctgcgtg ccgggcacca 840  
tgccaagccc ctggcgact tcatcatact ggatccccag gacaacccta tgaggtagta 900  
gtatcgtaag cccatttgta cagatgagga acacggggct cagagaagtg aagtgacttg 960  
ccaaggtca cacagcaagt gcatggcaac tcttggattt gaagccagat ctgtctcata 1020  
gctgcagtct agccgtgaca cctgagtgcc tcctaaaagc tacatcacag agctgtctga 1080  
ggatgctgtg gggaaccgtc tgtgaaaagg tgcaacacgt aaactccgaa gagtttatgg 1140  
caggcctcct gaagaacagc agactagagg ctaccagag gcagcctgga gacagagtgg 1200  
ggaggaatgc cctgtctcct ctcccagggg ccccgaccac cagcctagac cagcgggact 1260  
ctgggctgct caggcttcag ccatctctct cctgccacca tggctctgcc cagaaaccgt 1320  
ggatggccct gcccacaacc ctagaatgtt gcagggcttt ccggcaggag aggggcacag 1380  
gagggcgacc atgggctgag gtttctgaat gacattcagc aggatttctg ccaatggctc 1440  
gatggctcgc ttccactggg aaggatcacc ggtctgcccc caggggccct ggacccaaac 1500  
aggagcatca ggcctgccc ggaacagac acctcaggtc cgtcactcgg aggccctggat 1560  
gtagacgggc acagcgagca tggcacatgg gccctcggcc ccggcctgca gctccgccag 1620  
agccaggttg gagcccagcc cctcagcgtg tccaggtacc accagctcag tttccgcgcc 1680  
caccgcacca cccacaacga tggacagcac cgcgtccggc tctgcgaagg gcggcttgcc 1740  
ggggacagcc tcgggcacca gccagcccc tgtgtccttc agtcctcca gcccagcgg 1800  
gtcaggcaag ggggtcagca ccttgcgccc accactgccg caactgcggg gggctgccct 1860  
cctctggggg ggccgccggg tttgcaggtc cttgtccttt tgggggccga gacgacagcg 1920  
gtgatctttg aggtatttgt ggcgggaaaa gcccttggcg cagccagcac agcggaaactt 1980  
gtagttgcc gtgtgggcgc gctgatgctc ggcgagggtg gcacggcggc tgaaggactt 2040  
gctgcacagg gcgcatttgt ggagcttcat gcctggaggg caagggaag tcagtgagaa 2100  
gcatccagac cttaccccg caacagtgcc ctgcgctggg aataaaatcc aggctctttc 2160  
cccaccagca cctgtgtgat ctggccccag ctctctccac cctcgtcgtc tgccttcttc 2220  
cagccactct ctgcgccagc cacactcgtc ctctcagag atgccacgt ggctcctccc 2280  
tctgcgcctt tgtacttgcc attctcctct gcctggaaca gctgctcact ctctgcacct 2340

tggctcgctt tgccaggtca tctcaggctc agggaggggc cgtgacgcct gaggccaccc 2400  
 acaggaacat ggcagcacta agactccaac ccagccctgt gtgtccaagt cattgaccta 2460  
 ctctcccagt ttccacactt tcttttagtga ctgactcctt tctgtaaacc ttctcaaaca 2520  
 agggagactt tccccccag aggactcagc aatgcctaga gacatttttg gttgtcacia 2580  
 ctgtgggggg atgccactga caccagtaga tagaagccag ggatactgct aaaaatccta 2640  
 cagggcacag gacagccccc aggacaaaat tatctacagg attacaggcc agacgccggt 2700  
 ggctcacacc tgtaatccca gcaccttggg aggccaaggc gggcagatca cttgaggtca 2760  
 ggagttcgac accagcctag ccaacatggt gaaaacccca tgtctactaa aaatacaaaa 2820  
 attagctggg tgtggtggca ggcacctgta atcccaacta cttgggaagc tgaggcagga 2880  
 gaatcgcttg aacctgggag gcagaggttg caatgagcca agatcacacc actgcactcc 2940  
 acctgggtga cagagggagg ctccgtctc 2969

<210> 1281

<211> 2112

<212> DNA

<213> Homo sapiens

<400> 1281

taagaaagag gttaaatgaa cttacagttc cacatggctg gggagggctt acaatcatgg 60  
 cagaaggtga aagcatgtct cacatggtgg cagacaagag aagagagctt gtgcagggaa 120  
 actctccttt ataaagccat cagatctcat gagacttatt cgctattacg agaacagcac 180  
 gggaaagacc tgcccccatg attcagttac ctcccaccag gtccctctca caacacctgg 240  
 gaattcaagg tgagatttgg gtagggacac agccaaacca tatcactgcc ccagaactca 300  
 acttttcctg gaactgttct tcctatgagg gggagttctc catagtgcc acttcccaat 360  
 tatcatcagg gcatgatgta tctaattggc atggcctagg tcaggcactg tgcactagct 420  
 gcaacggagt cttggaaagg atacatttgc attttcagct tctacattgg caggtagggg 480  
 tttccccaga cataagaaaa gggttaaatg ctgggcagtc aaaaaagaat gatacatgtc 540  
 ctttcttact ggaacatgat ggctgtgaag aagataggcg gtagatgaag ctggagagtt 600

ttgactttat cctgtaggca gtgtggaaag atgagccact gatgattttt ggggaagaga 660  
gtgatagggtg aatagatgaa atacggagac atgggagggtg agaagttgag agaagctaag 720  
tggcattgag gactaaaata cagtgagaat ggaaaagaag gccagatggg aagaacctag 780  
aggtcacagg accaagcata tagtgcctgg ctgtggggaa gcagagacaa gtttcaggcc 840  
tgggcaactg gggaataata tagtataatt gtttaaagca tagtctctga aatcagactg 900  
actggtttga aaccacctc taccatttat tagctttgtg acaaattact cactctctct 960  
gtttgggggtt ccccatctgt aaaatgggga taactacttt cttcattgga ctctgtgagg 1020  
attgaaaaag ttgatgtatg tgaaacattt attaaagtgc ctggacccat ggtagctgct 1080  
cactaaaagg ggtgtgtgtg aatgaatggt aggatgatga acaaatttgg gacatatgtc 1140  
atggtgggtg gtttggtaca tttgggattt taggtggaac atccttgtgg agctgtgcac 1200  
tagaagtgtt tatctacagc ttgtgagagg ccagggctgg agacagaggt ggggaaacca 1260  
caagagtagg ttagatcagg gaggaagact gtagttggag acatgagtgc caaggacgga 1320  
accttgggac catttctgta gcagaaagag gaagtcgatt tggcaaagga agctgaattg 1380  
aacacgctat gaggtaggag aactgagaga gtgctgagtc atagatgtct aagaaacaca 1440  
aagttttaag aagcacagaa gtagttactg gcattagatg ctatggaaaa attagacaat 1500  
ggtaagttag acgttgccct tggatttaac aattaggtgc tcgctggtga tcaaggagaa 1560  
ggcagtttcg ctgtagtggt gggaacagtt tcttagtgct taataacaat gatgtaatcg 1620  
tgtatgtatg ttaaaaagga aatgaaaaat aaaacatgct atgaaatttt tgtccaagga 1680  
aattgtctag ctttaatacag aggtgtatag aagggaatgt ctgtagaaaa gaatatccca 1740  
gtggtggttt taaaacctag ctgctgcttg aaagaattgt gcaaataaaa tttacagtat 1800  
tttaggctaa gtgtgctggc tcaagcctat aatcccagca ctttgggagg ctgaggcggg 1860  
cagatcgctt gagctcatga gttcaagact agcctgggca acatggtgaa accctgtgtc 1920  
tacaaaaaaa tacaaaaatt agctgggcat ggtggtgtgc acctgtgtc ccagccactt 1980  
gggaggctta ggtgggagga tggcttgagt ctgaaagggt ggtttgagcc tgggaggtgg 2040  
agcttgcagt gagcagagag tggcatcatg ccactgcatt gtagcctggg agatagagcc 2100  
agaccttgtc tc 2112

&lt;210&gt; 1282

&lt;211&gt; 2191

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 1282

```
atggctcatt gcagccttga actcctgggc tcaagttact gagcttgcct ccgcttcctg    60
agtagattga ctacaggcac ataccaccac actgggcaaa ttttttttct tctttttttt   120
ttttgtagag acgggatctt actatgttgc gtaggctggg attgcgttct ttaacagcat   180
gctgaagttg cctgtaaadc ttttcatgtt tcttgaaaaa ttcattccta ccaactatag   240
tcttgtgctg ctgttgtaaa tggagtcac tctttgatat atgccaaactg gctgctgtgt   300
gcttgtgcc aacccccctca tgtattttctc atgctgttag gagtacttct cagggtgctgt   360
tgggttttcc aggtgcatca cctgcacatg gtactcattt cacctccatc ctctctctgg   420
tgcaccagcc ttggctgggc cctggcccag aagcagggtc agggagtaga ggggtggtag   480
ccctcgggag ccagacctgt gcctcgacca ggggtacaat gtgggataag aaacttaacc   540
tttctgtgcc tctggttgtg catctgtcag tgaggacaca gcatctgtct gccttttggg   600
atttggggga ggacacagga gctaataagg ggtaagtffc agtaatacta atagttaact   660
tttcctgtta agacaatacc agctgtgtgt tttctttcca tttttccca tatttttggg   720
gagttgattc tgcaacttgc tttctccttg tattttcagg ggcgtctgcc ttggatataa   780
aatcatagat ggggtgtgtg ctaagaaaaa gctctttgca accagtatta acaccacact   840
ccatgtgaca tgtcttcctg tcatttttca ttgtcctttg accaggtggg ctggatgaca   900
ctttgcacac aattattgat tatgcctgtg agcagaacat tccctttgtg tttgtctctca  960
accgcaaagc tctggggcgc agtttgaata aggcagttcc tgtcagtgtg gtggggatct 1020
tcagctatga tggggcccag gatcagttcc acaagatggg tgagctgaca gtggcggccc 1080
gacaggcgta caagaccatg ctggagaatg tgcagcagga gctgggtggga gagcccaggc 1140
ctcaggcacc tcccagccta cccatgggcg tggctcgcagc tactctagag gtgggtgggga 1200
ccagggttat gggagtggca ggtattatga cagtcgacct ggagggtatg gatatggata 1260
tggacgttcc agagactata atggcagaaa ccagggtggt tatgaccgct actcaggagg 1320
aaattacaga gacaattatg acaactgaaa tgagacatgc acataatata gatacacaag 1380
gaataatttc tgatccagga tcgtccttcc aaatggctgt atttataaag gtttttggag 1440
```

ctgcactgaa gcatcttatt ttatagtata tcaacctttt gtttttaaatt tgacctgcca 1500  
 aggtagctga agacctttta gacagttcca tctttttttt taaatttttt ctgcctattt 1560  
 aaagacaaat tatgggacgt ttgtagaacc tgagtatttt tctttttacc agtttttttag 1620  
 tttgagctct taggtttatt ggagctagca ataattgggt ctggcaagtt tggccagact 1680  
 gacttcaaaa aattaatgtg tatccaggga cattttaaaa acctgtacac agtggtttatt 1740  
 gtggttaaga agcaatttcc caatgtacct ataagagatg tgcataaagc cagcctgacc 1800  
 aacatgggtga aaccccatct gtactaaaca taaaaaaatt agcctggcat ggtgggtgtac 1860  
 gcctgtaatc ccagtgactt gggaggctga ggcaggagaa tcgcttgaac ccgggaggcg 1920  
 gaggttgtag tgagctaaga tcgcgccact gtactccagc ctgggcaaca gcgagactcc 1980  
 atctcaaaaa aaaaggaaat gtgtatcaag aacatgatta tccaggggta ttttctaatt 2040  
 cagatcatca aactgattat atagaagagt tggctttaaa atgtttgcaa atgtcttttt 2100  
 tttttttaat actggaagaa aaaatattct gttgtgtctc atacagtgtc taggatgtct 2160  
 ttcacagagc ttattaaaaa gatgaaacct g 2191

<210> 1283

<211> 2353

<212> DNA

<213> Homo sapiens

<400> 1283

gatttacgtc ctcatgtcgt atgggagaca cggaggagag gcgggtaaag ttggtcttgc 60  
 tctgccattc catgagagaa tgtgctgggt agaagaaagt tgccagcggg ttaagcattt 120  
 ttaaaatgca agaaacgctc agtagaacga gcttgaacca gccaactcca gacttgaag 180  
 caagcacacc acccgactgc gacatacggg cagtcgaccc tcgctccggc atcaccatgc 240  
 agagcaagcg cccatccaat gctaggcgga gccaccgtct tttgcagaac aattgtgcag 300  
 gttccaaagc ctcggaaaac cggagaggcg catcttgccg gctacggttg aaacccgttc 360  
 actgggtgat tctgaagcta gaagggcagc cgaatggcct tcccccgtc ctgcccctcg 420  
 tccactgtaa gctcaggggg gagcgggacc caggaggtg aagtgcacag actcggcaga 480

ggcggcgggc agaaccgcgg gggtagagagg gcgcggtggc tgtggggcgg gagccgctgc 540  
tgaaaggagg cctgggttgt tgggagggtg actgtccgtg gaatcttttg cggagggttg 600  
tttgaagaa tggcgagggg agagcagagg agaaggtggt gaccctgac gtcggccagg 660  
ggagagtagg ctgtgctgtc cctcctctcc cttatgtgg cgggggacat acagtggta 720  
ggaaggggggt tctccctgga ggaggctagt ccaccacact tcggctccgc tgaccctgc 780  
gatttctcca catgcggggc cctcgtccgc ggtggtgttt gcgctatccg gcggtgggt 840  
tcgcgcactc actctcctga catgccttgg ctcaccgccg atgtggatat cgccgccagg 900  
gacccttccc gccctcctac gaatcttgag tgcgcttcct tgggtgttctc accgaagctt 960  
acgaacagac agatgtgagc tctctgtctt ttacacgtg aatttggtta tagcaaaaaa 1020  
gccttgacca agagcttggg tctccttcgg acctgcacac gactcccaa ctccgcctg 1080  
caacggcggc tcttgatcc cgggcaggca gcgtccacc agcgtggaac cgtggcagcc 1140  
gcagcccccg caggttggag ggcagacact agcaggagaa aggccacaag gcctgcgtgg 1200  
tgggaaagca tgggagacgt cgctttccta ccgggcgaga aggtctccct acagtctttg 1260  
gagacaagat ggagggaggc accccttcca ggaacaaggc ggctgctcct gaggcctggc 1320  
tccgcacgga ggctcctggg tcccgcgcgc cctctcccta cccgctgtag ccagagctgc 1380  
ttcacatat tcaaccggcc tctcctcct cccagccgt cttgggaca gcaaggcccc 1440  
cagcccggtg gaaagacct gcctcctctc cagcacttgg agagggagtt ggatgcacgt 1500  
ctcttaacct caggaggaca gagaccctga ggcaggaggg gacccttcc cttgctgctt 1560  
ctcttggcac agccggtcca gggggctggc tcagggccca ggactcctcg ctctcctgg 1620  
agggcctggg tcgctgggcc caggagctgg ccacatgggc atctcccgca ctgctcctca 1680  
gggaacggga ggcattatcc tgcagggcc actcttacct atgaaagaca ctcgggaaat 1740  
gctcctgcgg aagctggagc tctgcgcgtt tgaccactta gtctgtccgc ccctccttcc 1800  
ttcgagggt cttggggaga gaagaaatgc tccttcggag ggtcttgggg agagaagaaa 1860  
tgctcgagga cgatgcgtt tgcagcgtct ctaccaacat cagaagaaag cagggcgcgt 1920  
cttcttgaa gaaggcggcc ggaggcctgc ggtcgcaggg aggctcgcgg ggcaggaacg 1980  
ccctatctcc gccgtgctat ccagcggctt gcagcatccc acctggcgga ctctcttcc 2040  
tctctcttct actgtggctc ttctatcctg gtgtcccttg aatgcctatc ttcttttgt 2100  
gcctccaaac ctctcacgcc cgcccaagt tactcatttc ctagttgtt ctgaacttta 2160  
aataaggtaa tgcattgtaag attgcataaa tgctcaataa ttgtcatctg ttattatatt 2220

catcagtaac atcatctgaa tcatcagtat tgtctatitt taacagctgc atttttcatt 2280  
gtccgaatat agtcacatac atttgaacat ttataatta ttgaataata aattcgttct 2340  
gctatitttac aat 2353

<210> 1284

<211> 2612

<212> DNA

<213> Homo sapiens

<400> 1284

atcctggagt ctaaccaggg tcaaggccct ccttccgtcc tgtcgccaag ccacaggagc 60  
agtatcaggc cttaggaaaa agccgccttc cccaagacaa ggacagcaag aactcagggt 120  
gaccatggtc aggccagcac ttatccatct gccaggcata tgagaagggg aggggcttcg 180  
gctctgatgt tctgatgaca aggggggtctt ggggcttgcc ttagggacac gtggcacctg 240  
tggaggttct tggaggcatg tgggtatacc atgggctgga aaaagatcca ggagtcattc 300  
gcacagatat ggtggctgaa ggaggagcag tggccccagg aggtggtgga gcaagaaggg 360  
cctaggatag aaccagaag gacaatggta tttaaggagc cagcaaaaga gacaagtagg 420  
aggaaagtca aaagtgtggt gtcacagaaa tccagggaaa aggtttcaag aaacagtcaa 480  
cagtgtgaaa ttctgctatg caagtcgatt atggtcagag ctaggaaaga tccattagat 540  
acaacaagat ggtggtcagg gatcgtgcca agaacagctt ccatggtatg ttggagtagc 600  
cagctcccag tgggactgag gagcaagcag ggtagggcgc agagggaag gctggagagg 660  
gtggcagccg gagggggatg ttgctttctt ggctcccacc cccacgcccc caccggctgc 720  
cattctgcct ggttcccatg tctggccctt ctgctgcctt tgcccagctc tggctttcag 780  
gatgggctgg attctggact ttctggttac atagacttga acaagtcacc taagttctga 840  
atttatttcc ccctctgcac aaggatcaga tctttcagat ctgtttgagg ctgctgtgag 900  
gatcaaaggc ggggtgaacgt caatgtgttc tgactattta tgtaagagta aaaggaggct 960  
gattctctcc tcctccctct tctgcaggct caaaaatgac caggctaact actcgctcaa 1020  
cacagatgac ccgctcatct tcaagtccac cctggacact gattaccaga tgaccaaacg 1080

ggacatgggc tttactgaag aggagtttaa aaggctgggtg agtgggtgtg agccatactg 1140  
gccttgactc gggtttggga gtatggtatc tacagggtcca gtccggggcc tggaatcttt 1200  
ggagagaggg agtgagtctg cctcaacagt ccaagacaag cccaacctag acactttcca 1260  
cagagaagac atctttgtgt tgacgtcctg acctaggacc aggtttttga tcctttgctt 1320  
gggttgagtg cctttaaaga atccagtga agctgtcaac cctctcccca gaaaggtgtg 1380  
tgcagcagct atgaagtctt gcacactctc ttcaggttgt tcttaaatacc caggctgaat 1440  
aagtccattc ctgcacgtgt ctgcgaggtg tctctggccc cctacatgcc accctgtctc 1500  
tcaaaggttt ctccaacttc cttctcacag ccctttttca tgtaatgaca aattaagaac 1560  
acgacctcat ggtctctact ctggcacttg ctgccgtgtg acagtggaca aatccttccc 1620  
cctctaagcg tatctgcca tgttgagtga agaggatgga ctatcactac attgctaaga 1680  
gctgccttct ttgttctctg gttccatgtt gtctgccatt ctggcctttc cagaacatca 1740  
atgcggccaa atctagtttc ctcccagaag atgaaaagag ggagcttctc gacctgtctt 1800  
ataaagccta tgggatgcca ctttcagcct ctgcaggtag gttcctgtct gggcttctgg 1860  
gcagttggcc tgtcctggcc ccagtgtggc tttctgtggg acttctagca agatgccctt 1920  
ccattcttgg gcagcgccat gaatgtgtga tgactccctg gtttctgggc cctggctggg 1980  
agcagcgtct cattagatcg gtttgttttc tataaaagt tttgagaggc tgttctaagg 2040  
ggagactttc tgaagcccag tcccaaaggt ctgggcagtt ggggacacct ccatggctgc 2100  
ccaaagccaa gggcagggag aggggcccag gcctgttctg ctcccttctt cctatgtggt 2160  
cttggcaagg catcttcttg ccatcatagg aaggagtcc tttctgggtc tgggtgttcta 2220  
tgatttttac aacatcctgg gtactacaag ttgcctgac tttttgctt tctgaaccaa 2280  
cgagcagggc agaacctctg aagacgccac tcctccaagc cttcacctg tggagtcacc 2340  
ccaactctgt ggggctgagc aacattttta catttatcc ttccaagaag accatgatct 2400  
caatagtcag ttactgatgc tcctgaacct tatgtgtcca tttctgcaca cacgtatacc 2460  
tcggcatggc cgcgtcactt ctctgattat gtgccctggc cagggaccag cgcccttgca 2520  
catgggcatg gttgaatctg aaacctcct tctgtggcaa cttgtactga aaatctgggtg 2580  
ctcaataaag aagcccatgg ctggtggcat gc 2612

&lt;210&gt; 1285

&lt;211&gt; 1986

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 1285

```
gtcggccgcg aggtgctctc cttccaccgc ggcctactcg ccgcagcccc cggcctgggg 60
ccccgcgcgc tctgccgcgg cggctcacgg tgcagccctc gcgcccgcga gtttcagcct 120
cagtgtcagg tgtgcgctga atggaaaagg gagattttga gacatcatgt caacagaaat 180
ggagatgtgc actggggaaa ctgccggccg ggccgctggc ccgtggacgc ctgggaggtg 240
gccaaggcct tcatgccccg aggactagca gacaaacaag gacctgagga atgtgatgca 300
gttgctcttt taagtctcat caactcctgc gatcacttcg tggttgatcg aaagaaagtc 360
acagaggtaa ttaaagtctg taatgagatc atgcactctt cagagatgaa agtatcttct 420
acgtggcttc gagattttca gatgaagatc caaaattttc tgaatgaatt caagaacatc 480
ccagagattg tggcagtata ctccagaata gaacagctgt tgacgtctga ctgggctgtt 540
cacatccccg aggaagatca gcgagatggg tgtgaatgtg aaatgggaac ttacctgagt 600
gagagccaag tcaatgaaat agaaatgcag ttactaaagg agaaacttca agagatatat 660
cttcaagcag aagaacaaga ggtgttgctt gaagagctct caaatcgact ggaagtgggtg 720
aaggaatttc tgagaaacaa tgaggatctt agaaatggcc ttacagaaga tatgcagaag 780
ctagacagcc tctgtctaca tcaaaaactg gattcacagg aacctgggag acaaacacct 840
gacaggaagg cctgaggttg cccgtcaaca aaaatcaggc atgttctgtg aaagtcagca 900
tggcttccat ctcagacatc cttttctgtg caaaaggaaa aagttaccag agtattgtac 960
ccaaacaaaa aggaattttt gttgttttgt cctggacttt cctctaactc tttggaacta 1020
ttttaatatt tataaacttg gggttgtata atctattgca ataaaaata ttagatactc 1080
tatgccaaaa cttgctacca ggccagggtg gatggctcac acctgtaatc cccagcactt 1140
tgaggaggcca aggcgggcgg atcacctgag gtcaggagtt cgagaccagc ctggccaaca 1200
tggcgaaacc ccattctctac ttaaaaaaaaa atacaaatat tagccgggcg tgggtggcatg 1260
tgcctgtaat cccagctact cgggaggctg aggcaggaga atcgcttgaa cctgggaggc 1320
agaggttgca gtgagctgag accatgccac tgtactccag cctgggcaat agagcgagat 1380
tctgtctccc aaaaaaacia aaaacaacia caaaacttgc taccaccag ggattttctg 1440
```

ctattttaaaa ggtgaatttc ttttctggta ctaaactgta gctgcttaac ttagtaaagg 1500  
 ctgtgttttg ccaggcctgt gccagaggct cacctggagt gctccacca ctggcaggca 1560  
 agtcctattc ctattcaccc aggatcccca aggctgggct gggatataaa tggtgggata 1620  
 ggaaagaaat atttcctttt tagaggaaag caagaagaaa cattgcctga aaggtgattt 1680  
 tctagtcatt tccaattagt acagaaatgt tactgcctct gggtagcagt gtacacgcct 1740  
 gtaatcccag cactgtgggc ggatcacttg agcccaggag tttagacca acctgggcaa 1800  
 gatggcgaga ccccatctct acaaaaaaat ttaaaaatta cctgggcatg gtggcacaca 1860  
 cctttattct cagctactca ggtggctgag gtgggaggat cccttgagcc caggtggtca 1920  
 aggctgtggt gagctatgat catgccactg cactccagcc tgggtagcag aacaagacct 1980  
 tgtctc 1986

<210> 1286

<211> 2964

<212> DNA

<213> Homo sapiens

<400> 1286

agacagaggc atcgccccag gcccagacag acggaaccg ctttcgctgc cactgagccc 60  
 agggagggggg ctctcgtca tctgtccaca cggagaggag tccgcgcccc atcttgctccg 120  
 gcgtgcagaa gctccgcctg tgcagacggg tggtcctgcc gtctgaaacc tgttacctgg 180  
 gagggggtcc aagctggaaa cggtagggg ttccaagga tcccagcaga ttgatggacg 240  
 gcagggtgc aggcggacgg ggcgggggct tcctaaggag agaggtgggc agcctgcagc 300  
 ccccatccca ctgccccac cccaccgtgt ggctgctgcc tggcctcagt ttcccatct 360  
 gtgaaacagg tgaaatgggc tctgttccg ggcctcggag cattcttatg ggggtcaggg 420  
 cctggcaagg gctgtgcagg ctgggctcag aactaggccg cccaggctgc gtggccacag 480  
 gggctctcggc cccacttct ccgtttgaga cctgcccagc cttcctgttt gctgcagcta 540  
 cggccgtcag attcgccacc aggagctgcg gttgtcctcc cagacaggga gactgaggcc 600  
 ctgagaccga ggctggccgg ggtcagacat gcaggccggg gtgaggcagg acacggcttg 660

cagccccagc tccctctgtg gggccaggaa gcttctagaa cagtccagtt cacgctgaca 720  
tggcagcagc tgctgtccgg gacccacag gcagcaacgt ggacagacgg gtcacgatca 780  
ctatatTTTT gtttttctga gacggggtct cagtgtgtta cccaggctga tctcgaattc 840  
ctgggctcaa gcaatccttc tgccttggcc tctgagtag ctgggactac aggtgtgagc 900  
cactgcaccc ggcttcaga tcatgattta accaaccctc cctcccagaa gccgcagccc 960  
gtgctgggag cctgggtggtt tttgtcggag ggcctggggc tgggctgggg cctcctggga 1020  
tcttgggtgtg ttttctgccc aggggtatcct cccaagggtgc ccatcaggag tcccaggacc 1080  
agctggagggt cacgtggggc tgtcctcttg gcgtccccag aagggccctg ctgtccaggc 1140  
tggccgggga cctcacctcg ggaacttccc gggacccttg catccctgtg gtgtagtgtg 1200  
cgagtcaggg gtgaggctgg gccctcgctg agcacctggg aaggcactcc accacccaaa 1260  
gagagaacca tgtaacctca gtgggcttgg cagctgtctc cccgctgtgt gacctggggc 1320  
agggtccccga gccgctgtct ctgtgagatg cagacataac cgggtgtctgc tccacaggtc 1380  
gggtgtgagc cttaggttgg tatttgtgaa gcgtgagaa ggacaccctt cactgcaggg 1440  
tgaacagaag tcacccttcc aacaacagaa gcgatgatgt gtgggacgag gtggatccgg 1500  
ggcctgtcct gccctcgggg gcagcgtggc tggccctctc tgcatatggt gccgtcccct 1560  
gccctgggag cctctctcct ccgttccttg tggctccttg ggggcatcag gcctctgcga 1620  
cccacctggt caccaagcgt tgtgatggga agagccccct ccgagctgag ctgtgctgaa 1680  
ccgccctggg ctggtgacct cacctcccag gcctgcttcc tgccacctct gactgtggca 1740  
ggagcactgg tgaggggagg cctgtcaggg tacaggagggt gaagctgggg ccgtctgatg 1800  
tcgtactacg gtcccagcag catcacctg gccggagcag ggccgggagc cctggcctct 1860  
gcccacctgt ggtcctgtgc cacctcattc cttcacagcc cccatcctg gcctcggttt 1920  
ctctgtttgg gcaagatgac ctctgaggcc ctccagcccc tcccttcgtg gactctgagc 1980  
tgctttggac atcatgtttt tatcttcag aaacttcagt gctctcaaga aggaaaatat 2040  
ttatgaaaac aataaactgg tgagtggccc ccgccccggc ctcacagctg gcttagccag 2100  
cctgctgagc cccaccacg tccgagggac cgagggactc ccccaggcc ctgcacctgc 2160  
cttgggagtc ctgcctggga atcgggggct ccctgaccag cccggcaacg cgtcctgggc 2220  
tgggtgaccc tagcgttcta gaaatagcct cttatcttgg caccagggc atactggtcc 2280  
cctcttttcc tgagctgggg agcaaggtgc caggagggtg ctggggacc tacttcaactg 2340  
caagggggct cagcccagtc tgcctcaggc agaacaaggg tctgggggtg gctgtggggg 2400

gctgtggatg ggtcccagtg ggcctgctgc cactcccacc acatgggacc tgccttccgg 2460  
 ccctgccagg attccagtcc tgccctgctc accccagctt ccaggccctt ccctgtgtgc 2520  
 agcctcagtt tgcctgctgc agaataagca ccacgctccc tcgtgggcag aggcaccggc 2580  
 agactacca cgcgccctgc aggcatgtcc tgtgctgtgc caggcaggcc ccggccacgt 2640  
 ccctgcccc ggagctggcc ttcagcgggg acagtgggtca gcactgaaga cagtcatacc 2700  
 tgcccgcccg gcactgccct gctcagcacg gggataattt gaacttaagc ttttaacttaa 2760  
 ttaaaatgaa ctaaaattac aagttcatgg tgaaacctcg tctctactaa aaataccaaa 2820  
 aattagtggg gcgtgggtgg gcgcacctgt aatcccagct attcaggagg ctgaggcagg 2880  
 agaattgctt gaatccggaa ggtggagggt gcagtgagct gacgctgcgc tccagcctgg 2940  
 acaacagagt gagactctgt ctcc 2964

<210> 1287

<211> 2258

<212> DNA

<213> Homo sapiens

<400> 1287

taaaaaaaaat gctgtgagag ctgatctatg catctggttt gtgagccagt attctgtgat 60  
 ggctgcagtt tttagagatc ctagtagctc tacacatctg tcttctgctt tcctagaacc 120  
 tgggcacccc atggatgact cactgctggg tttgtgtgtg tgtgtgtgtg atttaaaatt 180  
 acattcagtc aactctatag ccctatgggc tttttgaata accaaatgct caacagtttt 240  
 gtaatctttc aggttgctgt gatcagtcac caaggagtct acactttcaa agagactggg 300  
 aaaggcctgt gagacaatgg gattcttttt tctagagggtg taactctgcc tgtgtttgca 360  
 tgccacctcc agaaccacta aaatataatt tctcagtggg tgactgagta agactggcag 420  
 caattgcaaa agcagattca tgccatgtgt cactcttcac agtcagggaac ttatttacct 480  
 cttggaactt tccaaaggaa cgatgatggg gggggtaatg tcacattagt atggagccct 540  
 taaattcagc agtgttcaac ctgagggaag acagagtagg tcaattctct tggcagcagc 600  
 tgagggaagg agagagcagg gagcagggtc cagataaggt ttgtttggca gggccaagc 660

acttcatgga atggagacct ttggctgtca gagatctgag gaagatttgt cagggcctgc 720  
tacactctga gggcttgcag tttggatggt tgggaacact tcttccttgc actgatgggtg 780  
ctcctatttc tatgacacgt gtactagttc agacacagtt tatttgtttc accaattcta 840  
tgcacagcaa tcagactgag attgaaatcc agtataatat taaaggatgat ctgggccagg 900  
cgcagtggct catacttgta atcccagcac tttgggacgc tgagttaggg ggatcacttg 960  
aggccaggag tttgggacca gcctgggcca gaaaatgaga ccccatctgt aaaaaaaaaat 1020  
tttttttagg ttagccaggc atgggtggtgc atgctttag tagctagctac ttgggacact 1080  
aaagtgggag gattgcatga gcccaggagt tcgaggctgt agtgagctaa gatttgtcct 1140  
ctgcactcca gcctgggtga cagagcaaga ctctgtctct aaaacacaca cacaacaac 1200  
atctgacaag gcatttcagc ctggagtcag tcaaaaaatc ttagaggctct gtaaaggaga 1260  
tgactatgct gttagggctg tggtagaaac ctttaataac aagtgaagag agcttgtatt 1320  
tgccaaaatg aacacaggat atgattcttt ttttgctttt gctttggagt tgtatcagct 1380  
ctgtgcggtc acatgggtat ctacaaatca aagcacccat caaccagatg catctctgag 1440  
agttaacagc agaaggtggc ataataaaag aagttctcgg tagtgaaaaa ggttggaac 1500  
caccagctaa accaatcctc ttgtaccaat aggagattca agttgagagg tgggaaaggg 1560  
cctatctcag agtaggtgct tgaatacttc ttactagaat gaaagaagga acttaagatc 1620  
acacagccat gttactgcag gacggggaat ggaacctagg tcttcttatt tttggttcag 1680  
tgttaactcc cattctctaa gcagactggg cctgttatc aaactgcctt cccatagggtg 1740  
cttcctgct tctctcctca cccagagaag gacttacaaa cagcttatct tcagaggttt 1800  
tgtgcctgat agttatggaa tgtgctggtt tgagcaggga ggatgtaagg ggagggaatg 1860  
ctaaaagcct gtctacttag agtcaggttt cctgggtaag tccctggaac cccatccct 1920  
tcccccttct tgagaccca ggacttgctc cagtaactgc caccctgtgc ctttgcttca 1980  
gggccatgct ggataaggag ctggctgcct ctgtgaacat cctactcaag gcactttcac 2040  
tgtgagtttt gctgttgcca ttggaggggg agtgggggga gtgtggggag tgctagggtc 2100  
aggctcctggc tgggtgtaaag aacactgaat taaaggaatt gtcagaataa ctcaaaggca 2160  
tttagataat caacagtcca tttcagtgtt ttattcaga gatcgatcga tcagtgggat 2220  
gttgtccaac aaaagcaaaa atagactgta tagagaag 2258

&lt;210&gt; 1288

&lt;211&gt; 2379

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 1288

```
ttttaatggt gatgggaaaa tgggagaaat tgtatggatg tacagtagca gattattcac    60
atttgtgtta caggaaatca cagtctgaat agaaaatggt cagaatggct aaaatgggtca   120
cctattgttt tcttagaata aggggtggtga acacagaacg ggaaaattct tcaaggctctt   180
tcttgaattc gaaacatgaa gtcataacca agtatctggg acctatttgt agtgatctgc   240
aggaatttat gaaagtgcc aagaattaac agtttattcg gcttctaagt gttattaatg   300
tgaacttttt gatagttgga acattttgat cccatactct ctttggtgcc tttcacctaa   360
tactgttcta aaataggcta attttaataa atattcagca aaggaacatt cttagtgttt   420
aacttcaaat taaatgttgt aaacttattt taacatctaa agtccattat gtttgagtgt   480
tctgttaaat tcaacaagct aataaccttt ttttttaagg tacagcaggg aagaactgga   540
aactcagaga aagaaactgc ctttctttgt tcaagactgg gcttcaccg agcaggagat   600
tacctgggggc aattgatgtt atcggtcaga ctataactat cagccgagta gaaggcaggc   660
gacgggcaaa tgagaacagc aacatacagg tcctttctga aagatctgct actgaagtag   720
acaacaattt tagcaaacca cctccgtttt tccctccagg agtcctccc actcaccttc   780
cacctcctcc atttcttcca cctcctccga ctgtcagcac tgctccacct ctgattccac   840
caccgggttt tctcctcca ccaggegcct cacctccatc tcttatacca acaatagaaa   900
gtggacattc ctctggttat gatagtcgtt ctgcacgtgc atttccatat ggcaatgagc   960
ctcactgtgt tgcccagtcg ggagtatagt ggtgcaatct cggctcactg caagctccgc  1020
ctcccagggt catgccattc tcctgcctca gcctcccag tagctgcgat tacaggcacc  1080
tgccaccgca ccctgctaatt ttttgtatgt ttagtagaga cagggtttca ccatcttggc  1140
caggctggtc ttgaactcct gatctcatga tccaccacc tcggcctccc aaagtgttgg  1200
gattacaggc atgagccact gcacctggca tgatagacat tcttttggtg aagtctgttg  1260
gttgtaagtt ttgcttattt ttttgttgat gtttaciaag gctgtttgaa tcttgaaata  1320
aaatattggt gagtacactt ttctaggttg aaattttttt ctcaacactt tttttttttt  1380
```

ctttttttga gatggtctca ctctgtcgcc caggctagag tgcagtgaca tgatctctgt 1440  
 tcaactgtaac ctccgcctcc cgggttcaag tgattctcct gccttagcct cccaaatagc 1500  
 cgggattacc ggcatgcacc accatgcccc gcaaattttt atatttttaa tagagacggg 1560  
 gtttcaccat gttgaccagg ctggtctcaa actcctagcc tcaagttatc tgcccgctt 1620  
 ggcttcccaa agctttggga ttacaggcgt aagccatcgc gcctggcctc ctctcaacac 1680  
 ttgaagatg tcccagtgtg ttctggtttc cattttttat attgggaagt ttgtggtcaa 1740  
 cctaattctg attcctgttc acctgtata atgaagggtc tttatatgtt aggtttttaa 1800  
 gatttgtttc tggatcttcc cgatactgtg ggtattcatt caccatgtga tatttctctt 1860  
 ttctatttat aaaatgaatt tctattataa tctaatagaca catttttggg gggcattttg 1920  
 tttttttaaa gtaccataac gtttgttttt aatcgtgttt tttctttagt tgcctttccc 1980  
 catcttcctg gttctgctcc ttcgtggcct agtcttgtgg acaccagcaa gcagtgggac 2040  
 tattatgcca gaagagagaa agaccgagat agagagagag acagagacag agagcgagac 2100  
 cgtgatcgag acagagaaag agaacgcacc agagagagag agaggagcg tgatcacagt 2160  
 cctacaccaa gtgttttcaa cagcgatgaa gaacgataca gatacaggga atatgcagaa 2220  
 agaggttatg agcgtcacag agcaagtcga gaaaaagaag aacgacatag agaaagacga 2280  
 cacagggaga aagaggaaac cagacataag tcttctcgaa gtaatagtag acgtcgccat 2340  
 gaaagtgaag aaggagatag tcacaggaga cacaacac 2379

<210> 1289

<211> 2665

<212> DNA

<213> Homo sapiens

<400> 1289

cttttcgagg tcggccgcgt ggctggaaga catggccact ccagtcggtg ttgagcacgg 60  
 cgagcagtct caggccttta gtgatgatgg taaggctgcc tgggtgggaa aacggggtct 120  
 tccttgacac gacactaaca tacttggctt cccttcctca gagacgaagt ggtgacgata 180  
 atctcggttt ctccctcata ggggtggttag gagggttaaa agtactggat gagaaaatgc 240

tttccaaacg ttgagaaaat gttactatgt gaagggagag agctcaagcc cgtcctcggc 300  
gtcatagggc cggcttctgc gggggagagc gcctaacaac ctgggcagcc ccgtgcgcct 360  
ccgccgcgcg tgtgctgagc gtcatgccca ggggtcttcg gtgcccgcgc acgggcagac 420  
tctgacgatg gtggttctta attcagcatc aggagtgtta acgtgtgaag acgtgattcc 480  
gcttgggggtg tcttgaggac ggccccaatc ggtagttcat atttagcttt acagatagga 540  
gtcaatagga ttgtaaactt ctggaaagcc gtagttttaa caacgagcct ttttctctcc 600  
cccagaggcc tttctttgtt tggcatctgc agagacgggtg aaaagcagag ctccaggttg 660  
aaggatcaga gtaatagatg gagcccttaa catgagtaag agtgggtgca ggcagggcct 720  
gagtggtcac tagaaatgag aaagcacagt tggtgccatc acatacatc acctcctgct 780  
ttattctgaa gttcaagtat gagaatacgt gttgacatac aagccagcta tggtaaagaa 840  
ttactcaaaa ctcagaatgc taattatfff aatgataaaa atgagtaggg tctttgcccg 900  
tgtgatttgg ggccactagg tgctattgta accagcgtgg atcctcgta gggcatgcag 960  
ggatgaaaga gacatggcaa atgaatfff gatcgctagg atttaggaat ctttgttatt 1020  
ggctgagctg aggatgattt aaagttatcc ctgtctgaaa tggatatctt tgtgaggagg 1080  
tctgacttgc tgaggctcag ctgtttaata caaatctgga gaataaacct taaggtgggt 1140  
tctgttagaa tgaagcctgt tatccttctc ttttagatta aaggtggcgg ctgtggcctt 1200  
gaaaacagtc atgtgaaaac tcatcacctt aaggtgttaa gtgtaaggat cttcacgatg 1260  
aaatfffctgt aatgggtgag atfffntagta cttcataga cttgaatatg cttatggctc 1320  
tctttaagta ttggtttgtt agttttgggg atgtgttggc cttccagggt tacgattgcc 1380  
cagataatgg aagtagtatg gaattccttt tgatagggtc cttgccaagc actctcataa 1440  
agagcatttt ttgtttgttt gttttgagac agagttttgc tcttgttgcc caggctggag 1500  
tgcgatgggtg cgatcttggc tcagcgcaac ctctgcctcc tgggttcaag ctagtctcct 1560  
gcctcggcct cccaagtagc tgggattaca ggcatgcacc accacgccta gctaattttg 1620  
tgtttttagt ggagacgggg tttctccatg ttggtcaggc tggctttgaa ctcccgaact 1680  
aaggtgatct gtgctgggat tacaggcgtg agccaccttg cctggccata aatagtattt 1740  
ctaatatcaa ccccatatga ggtaaatttt tttcccact ctgctgctga gtaagtaaaa 1800  
gtgaggcgta aagagttctt ttgcccagg ttatacaagc agttactgag ttagactggc 1860  
agttctgaac tggggagcga tgggtttcct ggcatctggg gaatgctact attaataaat 1920  
accctggctg ggcctggata tttatctcat gcctgtagtc ccagcacttt gggaggccga 1980

agcagatgga tcacctgagg tcaggagttc gagttcgaga ccagcctggc caacatggtg 2040  
aagccttgtc tctactaaaa atacaaaaat tagctgggtg tggtaggcggg cacctgtggt 2100  
cctagctact tgggagactg aggcgggaga atctcttgaa cccaggaggc agaggtttgc 2160  
agttagctga gatggcacca ttgtactcca gtctaggcga caagagcgaa actctgtaaa 2220  
taaataaata aataaatatc ctacaatgca tacaacagcc tgcattgagga ataattgatt 2280  
caccagatg gtcagtagag ctgaggttga gaaactcctg tataccacac gttaggctaa 2340  
ctagagatct gagctctagt ctgagcctat tttctcacca gagtcttggt tcttcatttg 2400  
tgaaacaggg ttagtgattt ccaaacttga ttattacatc agagccacct acaaagtgtt 2460  
aaaatataca cattcctggg cctcacctcc aggcattggg gagaatggct ctggagtggg 2520  
gtccaggaat catgtggcca gtccaagagc aagtgggtag taactagatc aggggtgtca 2580  
atcttttggc ttcctgtgac cacattggaa gaattgtctt gggtcacaca taaaataaac 2640  
taacactaat gatagctgat gagct 2665

<210> 1290

<211> 3373

<212> DNA

<213> Homo sapiens

<400> 1290

atagacaggg ccgactgccg gccaggagga gggtaggggtg gggaaagccc tcggccctcg 60  
gagctgaggg tgagaccag gcatgtggc ccgccacct gctgccagc agcccggatc 120  
ccccggggct gccctggtg ccaaggcagg tggagctagc ggtcgaggtt tctggactga 180  
ggcccctccc ccagtgcggt catcccaccc agaacttcgc tctgccctg ccattctag 240  
gacagccgag agcccagcga cgtggatggg gcagctaggg gcagcagctt ggatgcggac 300  
cctcagtcct caggcaggga gaaagaacct ctgaagtaag ccctcacctc tgcaggtggg 360  
gctcaggccc agagactggg atcagctggc tcaggcagct caggtcctgg ttcgtccctt 420  
agcccaggag gatgctgtgg gagctgcagc agcggcaaga gggagaatgg ggggaagcag 480  
cactagagaa gttcccagag ctcatcctgt cactggctgc tctgctgaaa ttatcaataa 540

gaaatgccag ttggatctgt gacatgtctg cctgcagctg gatgggagca acggacagct 600  
tgtcctccga atgtgttttc tgtatgtgtg caagcgcgtg tgttccaaac gggcagtagc 660  
gtgtgggaag gaaaaagcct gacacttggt tttatcaatt tgctgatgct cagtcccggc 720  
ggctgcctcc ttgccccca gctgctctgc catttctctc ttttcaatcc tgcatgatcc 780  
tgagcagaga taaaagcaga tttccgcttc tgctcccaga tccaggagca gaccctgcag 840  
gcagctgctc ctgatgtctc acagctatta gtcttcaaaa acccccctg cctctgtgca 900  
cacgcgtctc tcctccccag ccagcccccc tcccagccca gcggcgatgt ctctacctgg 960  
ctggcccctg cccttgactt ccaggcagta gaagatggag ttctctagac agcagcactt 1020  
cagccgccac tctgcctctg aagggaagga agggaaaggg gtgctggcta ctgtgaaata 1080  
acaagagtcc aagagcaagg tgtccagagt cagagctcct gggtttgaac cttgttccac 1140  
cagcacatcc tacctctgtg gcctgggtaa gtttctgaac acctctgtgc ctcagtttct 1200  
ttagctgtag gatggagatc ctactggtat ctgtctctta gagttgtaag ggttgattag 1260  
ataacgtgtg gaagatgctt agcatgttgg gtaagtgtcc catatatgtg agctggcaca 1320  
atccggtttg cactgtaaata tactgaacag tggtagattc aggacggcta gaggctctca 1380  
catcctcact ctctggctct tcctgccgtc tctccacata cacagagctg ggcgaccggt 1440  
agttctgcaa cagatcagag gatggcagag ggtggcattg ctgggggtggg gaagccccct 1500  
gtaagcctgt actggagaag accaccactg cctctctgtg ccagaaacca tgtcccaacc 1560  
tccagtgggtg acctcgacct ggacagcgcc actcccagct ggctctgctt ccggaatgaa 1620  
cctcagctcc ttgacaagac gggaggcgct gccctgctgt ggtaccttcc tccgtgtgaa 1680  
tgctaatactc tctgctgggg gagcctgagt gacggggaaa ggctgcttgg agctgcaggg 1740  
cggctgaggg cagcaaccag gagcagggag gtgctgctcc tgtaactgag gctcagagcg 1800  
gctgccagtc tctcctggag actggagcat gaccaggga ctaatgaggc ggtgggggtg 1860  
tggtgggagc cagggaagta gccactgcag ctgtggctgt cactgtcac cctgggggtg 1920  
agatgtcacc ttggggagta cccacccatt ccaagtgtgc agttgtgtgt gtgtgtggtt 1980  
gtgtgtgtgt gtgtgtgtgt gtgcgcgcag tcctgggcaa gggcaaacag tacaggtggt 2040  
gggccaagac tagatgggta gggcacagtg cccactatga gacaggcaca atggcgagag 2100  
agcaaaccct gctggttccct caggctcccc tagcctctct gtggggggcc tctgtttag 2160  
gaagaagccc aagacctaga gctagaggaa gataatgctt ctttgtgaac ctcagaagaa 2220  
cagtttggtt cgcacggaag cttatgttaa cataatgatg atactaatcg tatgattaat 2280

aaccactaac atgcattggg cgcttactat gtgctaggca ctgtgccagc tgctgtatTT 2340  
tacgcactgt ttcatttatg cggcaggaac tgttatcatt tatccaataa ggaaagtgag 2400  
gttcacagaa cttgctcaag gtcactcata gctggcagtg aagccaggac ctgagcctgg 2460  
gaaatctgac accaaagctt gggatagagg gggcccaagt ctcgagttgg gggccgtgag 2520  
gaaattttga ttgtgacctg tctacaaggc acaaggaatg gagctgtggt cccgcccagc 2580  
ctgcctttgc aagtgggctg gtgttgGCCa gggTcattgc caccaatctg tcttcaggaa 2640  
ctcacattca agggcagacc agactctagg ccctgagaag ctggttcttg cctgccaggt 2700  
gagggggaga ggagagctgc cccttttaga cccctcagtc ttcctcagga aggatgtggt 2760  
ggcctctggc agggatgaca gacagcgagg tcatcaccca cagtcactgc aactgccact 2820  
ctgttgCctc cttcagccag gggcagggcc ctggggagag gacaggatgg cagccagcag 2880  
cccagctgga gatgcggagc ctgtccttca gctcctactt aatggaagcc tcgcagatgc 2940  
aagatggctc cagcaggccc agcatcactt cttctcagtg tcccaaagcc agaagagagg 3000  
ctgttgTTTT taaaagcagg aaaactttcc taaacttggc cagaattgca tcacagaccc 3060  
tttcctaaaa caatttccag caaagggaaT agacttacca tgtctggtac agatgaatca 3120  
aggtttgccc ctgggggctg gggaggggct tgtcccgctg aagcagactc ttgcccagca 3180  
gctgaacgga gcctaggttc accagacgga ggaagagact ggccactaac agtgcctgac 3240  
acacagatgt gcttctgtg atatcgctgc tgccaccgtt ccaaattgaa gcagttggct 3300  
gtctgggata ctacctacct tcttttgtgt tcttattaat aaaattaaag attgctttct 3360  
gggtagagaa att 3373

<210> 1291

<211> 2425

<212> DNA

<213> Homo sapiens

<400> 1291

aggactgcgt tctggaggcc gagccggaac ccgtgcggcg gcgctgggaa gagactgtgc 60  
ccctgcagct cccctgtcac cggctccaag gagcgtcggg ctccccccgc ccagccctgc 120

agcacccatc cggcaacgcc agactcggcg caacgggggc agctgcgact ttaaattctct 180  
cagatccgcg gcctgagggc tgccgccacc gagaaatgga ggcacagagc tgtgaacaag 240  
agaccacggc tcgccgaaat ggcggtgcca ggagcctgaa agggaaatgca gccggcgggg 300  
ttgtcaagga caacatttgt tttggcgcaa ccagcgggtgc cgtcaccaag aaaccgtcga 360  
ctctgagaaa aaaagagaag ttcggctacc gagaaactcc gtgcagcaag tgctgtgaca 420  
gcaaaaccgc cggcttcgcg ccgctggcga aagagccaac ggaaacgccg ggtgctgcga 480  
ccgcgaagcc ggcactagag ggcctcggat ggagaaagcc ccgcaccgag acgaggaaac 540  
tgtgcacagc acgactagca gttgacacaa acagaaaagt gtctcgtctg ctctctggga 600  
gaaagcgtgg atcaaaacca gcaactcagt ggagagaacc ccgcagccac tgaagaagtt 660  
gcccacgtgg cgggtggggc agagaaacac cgcgatttcg acgacagccg tagggatacc 720  
acagagaaac atgcgcggcc acagaagtac atccagctcc gcgcaatcag tggttctgcg 780  
atccagaaac cgccagctgg gctagactag aaacttctaa aaaactgtcg tcccatagca 840  
gctttcctaa ccacgacaga cagtcgcctt tagggagcac ctaacggtgc tgagaccggc 900  
ctgggccagc aaaagcgcag agcggtgcca gtgccaagaa acgcccgact tggtgaaacc 960  
aaccttgtga ccaccgattc cactggcttc gcaggacgca acgggcgaag gcgcggcgga 1020  
gaaaccgcag gtccttca ccgattatgc tgcgagctgg ggatggtggg gggcacccgc 1080  
gaaattgtga aaccagcggc gctgggaccc agcgatcagc tgcccgtagc aaatgtctgt 1140  
gcagttgcaa aagataattt ttggccgtga gaaggttgcc gccagagagc gtccgataac 1200  
gctgacaaag gcgtggcgctt gccagtgaaga aacagccggc gctgggaaag gaacggtgca 1260  
gcgaccgacc aactgcgcgc tcggtgccac caaagtgcta ctggctctac ccactctgtc 1320  
ccccacgggc ttagggaagt ctgatgtctt tttcttttct tttttcctct gtcgcctagg 1380  
ctggtgcagt ggtgtcatct tggctcagtg cagcctcgac ttcctgggat ccagcgatcc 1440  
tcccgttca gcctctagag tagccgagac cacaggtcac ccctcgctgc caggctctct 1500  
tcccgtcca gagccacag gatcctacag gaggggccaa caactgcttg cctttgaaac 1560  
ttgaaactct cggctctaagg ttccttagga gcgtaaaagg cacagcgttt tctgatcgca 1620  
gcttcaggcc tcccgccct gtcccgtac ctctcctgca ggacggaact ctgtgggaac 1680  
cgctcgttga ttctgatggt taactgtcag atatccttga tattggacat aggatttgga 1740  
agagggcagg agagaaaaat gaactgcaag actccagcac aagaggtggg attgctggca 1800  
gatgtctgct ccctctcaa acctaataa catctcaaag tgccatccac tttcctatac 1860

ccttgatctg tgaaatggat cactgacgct ttctctgtct ttccggaaat gcaaaacagg 1920  
 tgaattttca agcgcttgaa ttgtctctca cacttttcag tcaagagtgg ggctataaac 1980  
 tccttcctca taggaaataa ggaactgccca ctgcttgga gtaaaacgta tttttcccat 2040  
 aagctttcac atttcccaaa aaaaaattat acatccagat gtaatcccc taagaggctt 2100  
 acagacccta ccaggagcgt tcccacgcga acgcatcatc tccaatcgg atcctgaaaa 2160  
 caccatgcaa ccaattccat ctttttctgg atcaacctgg gcagaggaca ggtgcagagg 2220  
 agcccagaga agggccttga caagtcagga gacccaattt ggggtcgcaa ttgtcactca 2280  
 ctccccaggc gtttgctttg atcttccct cccaccatac tacttcttct gctacctggt 2340  
 ttctccctgg tatttgagga tctccaatt gccttctggt cttacagacg ggagaataaa 2400  
 ggaaaaatgg catcgtttcc acctt 2425

<210> 1292

<211> 1833

<212> DNA

<213> Homo sapiens

<400> 1292

gtttttctgc tctccgccg tgtggagtgg tgggggcctg ggtgggaatg ggcgtgtgcc 60  
 agcgcacgcg cgctccctgg aaggagaagt ctcagctaga acgagcggcc ctaggttttc 120  
 ggaagggagg atcagggatg tttgcgagcg gccgcccctc tgtcacctgg agcaactgtg 180  
 gcgctgctcc tccccgctgg cccagagttt ctgtggctct ggttcgggct ggccaaggcc 240  
 ggctgcgca ctgcctttgt gcccaccgcc ctgcgccggg gcccctgct gactgcctc 300  
 cgagctgcg gcgcgcgcgc gctgggtgctg gcgccagagt ttctggagtc cctggagccg 360  
 gacctgcccg ccctgagagc catggggctc cacctgtggg ctgcaggccc aggaaccac 420  
 cctgctggaa ttagcgattt gctggctgaa gtgtccgctg aagtggatgg gccagtgcc 480  
 ggatacctct cttccccca gagcataaca gatactgcc tgtacatctt cacctctggc 540  
 accacgggcc tcccaaggc tgctcggatc agtcatctga agatcctgca atgccagggc 600  
 ttctatcagc tgtgtggtgt ccaccaggaa gatgtgatct acctcgccct cccactctac 660

cacatgtccg gttccctgct gggcatcgtg ggctgcatgg gcattggggc cacagtgggtg 720  
 ctgaaatcca agttctcggc tggtcagttc tgggaagatt gccagcagca cagggtgacg 780  
 gtgttccagt acattgggga gctgtgccga taccttgtca accagcccc gagcaaggca 840  
 gaacgtggcc ataaggtccg gctggcagtg ggcagcgggc tgcgcccaga tacctgggag 900  
 cgttttgtgc ggcgcttcgg gccctgcag gtgctggaga catatggact gacagagggc 960  
 aacgtggcca ccatcaacta cacaggacag cggggcgctg tggggcgctg ttcctggctt 1020  
 tacaaggaga gccaattcgg gacccccagg ggcactgtat ggccacatct ccaggtgagc 1080  
 cagggtgct ggtggccccg gtaagccagc agtccccatt cctgggctat gctggcgggc 1140  
 cagagctggc ccaggggaag ttgctaaagg atgtcttcg gcctggggat gttttcttca 1200  
 aactgggga cctgctggtc tgcgatgacc aaggttttct ccgcttccat gatcgtagt 1260  
 gagacacctt caggtggaag ggggagaatg tggccacaac cgaggtggca gaggtcttcg 1320  
 aggccctaga ttttcttcag gaggtgaacg tctatggagt cactgtgcca gggcatgaag 1380  
 gcagggtgg aatggcagcc ctagttctgc gtcccccca cgctttggac cttatgcagc 1440  
 tctacacca cgtgtctgag aacttgccac cttatgccc gccccgattc ctcaggctcc 1500  
 aggagtcttt ggccaccaca gagaccttca aacagcggaa agttcggatg gcaaatgagg 1560  
 gcttcgacct cagcacctg tctgaccac tgtacgttct ggaccaggct gtaggtgcct 1620  
 acctgcccct cacaactgcc cggtacagcg ccttcctggc aggaaacctt cgaatctgag 1680  
 aacttcaca cctgaggcac ctgagagagg aactctgtgg ggtggggggc gttgcagggtg 1740  
 tactgggctg tcagggatct tttctatacc agaactgcgg tcactatattt gtaataaatg 1800  
 tggctggagc tgatccagct gtctctgacc tac 1833

<210> 1293

<211> 2218

<212> DNA

<213> Homo sapiens

<400> 1293

agaatctttc caaaaacttg aatgtggagg ggtagatggg ataatgccgg gagaggaggc 60

tggtgaagga cctcttagtg aagggagatt tgttgctgtt tctgagatgg gaaagagaaa 120  
caagttgcag ttagatggg gaggatggag aggttgaagg ttaggagag atgggtcacc 180  
atcagatggg acgtctgtga aggagagacc tcactctggcc cacagcttgg aaaggagaga 240  
ctgactgttg agttgatgca agctcaggtg ttgccaggcg ggcgccatga cagtagagag 300  
gttaggatac tgtcaagggt gtgtgtggcc aaaggagtgg ttctgtgaat gtatgggaga 360  
aagggagacc gaccaccagg aagcactggt gaggcaggac ccgggaggat gggaggctgc 420  
agcccgaatg gtgcctgaaa tagtttcagg ggaaatgctt ggttcccga tccgatcgcc 480  
gtattcgctg gatcccctga tccgctggtc tctaggtccc ggatgctgca attcttacia 540  
caggacttgg catagggtaa gcgcaaatgc tgttaaccac actaacacac tttttttttt 600  
tctttttttt tttagacag agtctcactc tgtcggcctg gctggagtgc agtggcacga 660  
tctcggctca ctgcaacctc cggctccccg gctcaagcaa ttctcctgcc tcagcctccc 720  
gagtagctgg gattacaggc atgtgccacc acgcccggct aatttttgta ttttagttg 780  
agatgggggt tcacatggt ggcgaggctg gtcttgaact cctgacctca ggtaatccgc 840  
cagcctcggc ctcccaaagt gctgggatta caagcgtgag ccaccgtgcc cggccaacag 900  
tttttaaate tgtggagact tcatttccct tgatgccttg cagccgcgcc gactacaact 960  
cccatcatgc ctggcagccg ctggggccgc gattccgcac gtcccttacc cgcttacta 1020  
gtcccggcat tcttcgtgt tttcttaact cgcccgttg actagcgccc tggaacagcc 1080  
atttgggtcg tggagtgcga gcacggccgg ccaatcgccg agtcagaggg ccaggagggg 1140  
cgcgggcatt cgccgcccgg cccctgctcc gtggctgggt ttctccgcgg gcgcctcggg 1200  
cggaacctgg agataatggg cagcacctgg gggagccctg gctgggtgcg gctcgtcttt 1260  
tgctgacgg gcttagtgct ctgctctac gcgctgcacg tgaaggcggc gcgcgcccgg 1320  
gaccgggatt accgcgcgt ctgcgacgtg ggcaccgcca tcagctgttc gcgcgtcttc 1380  
tcctccaggt gtgcacggga gtgggaggcg tggggcctcg gagcagggcg gccaggatgc 1440  
cagatgatta ttctggagtc tgggattggt gtgcccgggg aacggacacg gggctggact 1500  
gctcgcgggg tcgttgaca ggggctgagc taccagcgga tactggtgtt cgaaataaga 1560  
gtgcgaggca agggaccaga cagtgtggg gactgggatt attccgggga ctgcacgtg 1620  
aattggatgc caaggaataa cggtgaccag gaaaggcggg gaggcaggat ggcggtagag 1680  
attgacgatg gtctcaagga cggcgcgcag gtgaaggggg gtgttggcga tggctgcgcc 1740  
caggaacaag gtggcccgggt ctggctgtgc gtgatggcca ggcgttagca taatgacgga 1800

atacagagga ggcgagtgag tggccaggga gctggagatt ctgggggtcca gggcaaagat 1860  
aatctgcccc cgactcccag tctctgatgc aaaaccgagt gaaccgttat actagccttg 1920  
ccattttaag aattacttaa gggccgggcg cgggtggccca ctctgtaat cccagcactt 1980  
tgggaggccg aggcggatgg atcacttgaa gtcaggagtt gaccagcctg gccaacatgg 2040  
tgaaagcctg tctctaccaa aaatagaaaa attaatcggg cgctatggcg ggtgccttaa 2100  
tcccagctac tcgggggggc taaggcagga gaatcgcttg aaccgggag gcggaggttt 2160  
cagtgaagccg agatcgcgcc actgcactcc agcctgggcc agagtgaagac tccgtctc 2218

<210> 1294

<211> 2442

<212> DNA

<213> Homo sapiens

<400> 1294

tttgctttgt tgtctgtttg tccatgcctg tctgtccatg cctccatcta ttcttttctt 60  
ttttcttctt ttgttttttg agatggagtt ttgctctgtc acccaggctg gagtgcagtg 120  
gtgcaatctt ggctcgctgc agcctccacc tcccagggtc aagtgattct cctgcctcag 180  
cctcccagat agctgggatt acaggcatgt gctaccacac ctggctaatt ttggtatttt 240  
taatagagac ggggtttcac catgttggtc aggctgggtct cgaactccta acttcaagtg 300  
atctgcccgc tttggcctcc caaagtgttg ggattacagg cctgagccac cctgcccggc 360  
ctaacgcata catattgttt ctgatgcat ttcacagtaa gtggtgaaca tccgcttgtg 420  
catgtcgttg actagagttc agcattaaaa acagaggga ttataatgac atctgactcg 480  
aggcagggga gaggcacca ggcagggtga cctggctgaa gttggaagag aaggttcctt 540  
ttccctgctg tttctgcgtc tggaaacttc tggggccacg tctgggtaac ttcagggtgg 600  
ggcatgcat cccacagggc aggccgggct gctgcaggcc agtcttcctt aagtggcccc 660  
cagctgggtgc cctcaaacac tgttgaggct gcattgttgt tgttgttgtt gttgttattt 720  
tatttatttt ttgagacaga gtcttactcc atcacccaag ctggagtgca gtagcacgat 780  
gtcggcttac tgcaacctcc gcctcctgag ttcaagtgat tctcctgcct cagcctcccc 840

agtagcacac tgccatgtct ggctaatttt tgtattttta gtagatacag ggtttcactg 900  
tattggccag tggctctgaa ctcttgcca atacaggctg aactcctgac ctgaggtgat 960  
ccacctgcct cagcctccca aagtgtgga attgcaggca tgagccactg tgctcggctg 1020  
agattgcatt gttgttgagg gtgcattgtt gttgagggtg cattgttgtt gaggctggat 1080  
tgttgttag gctgcattgt tgctgaggct gcattgttgc tgaggctgca ttgttgttga 1140  
ggctgcattg ttgttgaggc tgcatgtgtg tgttggccac agacggggcg gggcctgtga 1200  
cgggcagtga ctgagcctct ctcccctcat tcttccacag ctggagccag acggactgct 1260  
ggtgtgggtc ctggcaggcg ccttggggct cagcctcgtc ttctccctgg tctcagtccc 1320  
attgcagtgc ttccagctca gcagagtcta tggcttctgc ctgctcctct tctacctgaa 1380  
cttccctgtc gtggccctcc tcaactgaatt tggagtgatt cacctgaaaa gcatgtgact 1440  
gaagccgctt agtgctgtgg cctcactgca ggcaggagcc ccgcccctcc tgccggggga 1500  
ggcccaggga ccggagcatt tctgcaaggc ctttgtgggc acgagagtgc ggcccttgct 1560  
gctggagatc tgaggtcact gctgtgagct gggagaactg ctgtgtacct cttgctgcca 1620  
gcaccaaca gccttgccgt ggggaccttg gaaacctggc ttgtctctgg acaaagggtt 1680  
ccagagagaa gctagaagcc ccccttgaat gacccccaga gccctctga gaagggtg 1740  
agtttggggg aaggggatgg ctggatgtgc tccaggccat gctggaggta ccccagggc 1800  
acaggcactg ccggttcccc ttgcctgggc ttcaggcctt ctggcacctt ctgaggacac 1860  
aagtggctgc ccaacctga ctgagagaat gagggtggct tggaccctg ggaatcaggc 1920  
cgccgagggc tgagctccag agccgcacca tctgccacaa acagaattcg agacatactt 1980  
aatTTTgaat ttctccttgc cacgttaata aagccaaaag cagcgggtgc tttcgtggc 2040  
aacacacttc actgaacca cttgcttcca aaatgatgcc agcccgaggc actgctacgc 2100  
cagcagctgc cacatgggat ggtggctcag gcgtccctc caggattctg cccctgcctg 2160  
tccacagact cttttgtgct ggaacctggg ctctccagc tgccaggcag gagtcggtag 2220  
gactgtgcct gtgcctccct cagcggggcc ctgggcgggg ttccaaggcc tgcgagctgg 2280  
gaaaggacag atgaggggac ctgctgcctt cttgctgtca tgcaatgacc ccgccttatg 2340  
ttgccgaaat aagcaactct taggtttgcc tgactgcctt atgctggtaa agaaaaggga 2400  
ttcaactgtc tcttttccaa ataaaaaaaa agtcaaaatt tc 2442

&lt;210&gt; 1295

&lt;211&gt; 2335

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 1295

agatcgaaag	acttagccta	caccatttta	atttttagaaa	tggcaatggc	tagagtgaaa	60
aacatgaagg	ctgctaaacc	aatcacacat	tccagaaaaa	aatagcgctt	ttataaaact	120
cactccattg	tggcccacag	aacacccaag	gccaaaaaga	ttagaaagtt	tagaaagggc	180
agttatctca	acagaccgat	gctcgcaaag	aggccgctgt	tctctgcagc	aaagagcctc	240
atacattcgc	aagggatttt	ttcatcctta	ggagacctga	gtcctcaaga	aaaccctctt	300
ctggaagtag	ttgctccttc	agaacgtttt	acagaaaaca	ctaattgtaa	agacacaact	360
aatgtaaaag	acacaaaaga	gatgtgttca	aagacacatc	tctgaaaaca	caaaactaca	420
tcatcctcct	gaggcagttt	ccgctgggac	tgcattcaac	ttagaaccaa	ctgttaaaca	480
aactgagaca	aaatgggaat	acaacaatgt	gggcattgac	ttgtcccctg	agcccaaaag	540
cttcaattac	ccattgctct	cgtccccagg	tgatcagctt	gaaattcagc	taaccgagca	600
gctacgggtc	ctcatcccca	acgaggatgt	gagaaagtgc	atgtctcatg	ttatctggac	660
cttgaaaatg	gaatgttcag	aaacacatgt	gcaagggagc	tgtgccaagc	tcatgtcgcg	720
aacaggcctc	ctgatgaagc	ttctcagcga	gcagcaggaa	gcaaaggcat	tgaatgtaga	780
atgggatacg	gaccaacaaa	aaacaaatta	tattaatgag	aacatggaac	agaatgaaca	840
gaaagagcag	aagtcaagtg	agctcatgaa	agaagttcca	ggatatgact	ataagaacaa	900
actcatcttc	gcaatatctg	tgactgtcat	actaataatt	ttgattataa	ttttttgttt	960
tatagaggta	aagacaataa	ttaattcagg	ttttcaaaat	acaatcctgt	gtttgtgtgg	1020
attcagaatc	cacaaactga	aaaccaacgt	cactttccca	cttgacattc	ttcttctgtc	1080
atttaaggct	gaggtgtgct	ttgttctttt	actgcaatgt	atattccagg	attgttaaag	1140
gatcctcgct	tccaggaggt	ctctgtgaaa	taaaaccaag	ttaatcccac	tagactattt	1200
taagaagtta	agttgatata	atagcaaaat	ttctcccacc	caaaactatg	tcaacaattg	1260
gatgtactca	ctgagtcacc	ccttactctg	cctctaattt	atttccttgt	tgcttaaattg	1320
atgagagaca	tataatctcc	accctcacgg	agttgtcatc	accctggaga	ggaagaagac	1380

agccaaaaga gagaagtatt gtctttaga cttactagat tcacatagta tcattcttct 1440  
 ccagtgtgta aggtgttgtc taaataggtc cagttaaaga actacagggt agccattttt 1500  
 aaaaaaaaaat tttggccacg ttttcaaatt cacaggggag ggggaatgtc tcatactcca 1560  
 gccctcctga gcctaggccc tctgtgagat gtgtcaccat ttcttggaca ccatatgaga 1620  
 cattccccct cggattagag atgctcaacc tgcataca aatctaaagc ctgcatctgg 1680  
 ctaccctggg gcgagtcctg tttacagtgc ctattcctgg agctcgcctc tttttgcctt 1740  
 ttgtttgatt atgtgatgta ttacttttcc cagcaggcca gtgctagcat actggaagag 1800  
 ggatttaata agctggcacc cttgatgcta tgctccta ccaaccttat ttgcctcatt 1860  
 ggccatttcc attatgggtg cagccctcca ttccagccac agcagcccct cagcgtcccc 1920  
 cagtcacact gtccccattg ctgctcatct gtgcctttgt ccatctacaa tgcccttatt 1980  
 tcactctgcc tgtgggagtc ctgtgaatct ctccaaagcc aactcagttc atctttctgc 2040  
 ttgaaacctt ccctgaatag gccagggtgc gtggctcacg cctgtaatcc cagcactttg 2100  
 ggaggccaag gcaggcggat cacaaggcca ggagatcgag accatcctgg ctaacacaga 2160  
 ccattctcta ctaaaaatgc aaaaaattag ctgggtgtgg tggcgggctg gtgtcgtccc 2220  
 agctacttgt gaggtgaag caggaaaatg gcatgaacct gggaggtgga gcatgcagcc 2280  
 agccaagatc gggccgctgc actccagcct gggggacaga gcgagactct gcctc 2335

<210> 1296

<211> 3138

<212> DNA

<213> Homo sapiens

<400> 1296

tccgtggctc tggggcactg aggagcggcg cccgcggggc agcgaggagc ccgatgcagg 60  
 gttctgcgcg tcatttccgg tcccgcgggc gccccgtgaa gcccacctgg atccgccagc 120  
 gctgtgccac tccccagtgc cgagctccga gctgtctccg cggcctcgcg cccggcccc 180  
 ccaccgcgcg cctctcaggc cccgcccgcg agcgtccctt tgttgtgaag gcgccggggc 240  
 ctagcgctat gcctgcggcg gagactgcat caggctctcg cgtctgcttc tgcgctttgc 300

ctgggagagg ccctggtggc ctcgttcctg gcgcccggag tccctgctgc ggccccaccc 360  
ccgggcggtc acggtgacct atgctgcccc gcctggaggt aaaatcggtc gtggctgtgg 420  
cttcagcatg tcgtcctcgg tgaaaacccc agcactggaa gagctgggtc ctggctccga 480  
agagaagccg aaaggcaggt cgcctctcag ctggggctct ctgtttggtc accgaagtga 540  
gaagattgtt ttgccaaga gcgacggcgg cacagatgag aacgtactga ccgtcaccat 600  
cacggagacc acggtcatcg agtcagactt ggggtgtgtg agctcgcggg cgctgctcta 660  
cctcacgctg tggttcttct tcagcttctg cacgctcttc ctcaacaagt acatcctgtc 720  
cctgctggga ggcgagccca gcatgctagg tgcgggtcag atgctgtcca ccacggttat 780  
cgggtgtgtg aaaaccctcg ttctttgctg ttgtatcag cacaaggccc ggctttccta 840  
cccaccaac ttcttatga cgatgctgtt tgtgggtctg atgaggtttg caactgtggt 900  
tttgggtttg gtcagcctga aaaatgtggc ggtttcgttt gctgagacgg tgaagagctc 960  
cgccccatc ttcacggtga tcatgtctcg gatgattctg ggggagtaca cagggtctgt 1020  
ggtcaacctc tccctcatcc cagtcatggg cgggctggcg ctgtgcacgg ccaactgagat 1080  
cagcttcaat gtcctggggg tctcgccgc actgtccacc aacatcatgg actgtttgca 1140  
aaatgttttt tcaaaaaagc tgctcagcgg ggacaaatac aggttctcgg ccccgagct 1200  
gcagttctac accagcgccg ctgcgggtggc catgctcgtc ccggcccggg ttttctttac 1260  
ggacgtccca gtgatcggga ggagcgggaa gagcttcagc tacaaccagg acgtggtgtc 1320  
gctgcttctg acagacggag tctgtttcca ccttcagagc atcacggcgt acgccctcat 1380  
ggggaaaatc tccccggtga ctttcagcgt cgccagcacc gtgaaacatg cttgtccat 1440  
ctggctcagc gtaatcgttt tcggcaacaa gatcaccagc ttgtcggccg ttggcacagc 1500  
cctggtgacc gttgggggtc tgctctacaa caaagccagg caacaccagc aggaggcgct 1560  
gcagagcctg gctgcagcca ctggccgggc cccagacgac acagtggagc cgctgcttcc 1620  
acgggacccc aggcagcatc cctgagagca ggaagctgcc agctgctgct gtcctcgtga 1680  
cactgcatcc cccagaaatg ggcagggacg ccctcctcca tggccctgct ggggtgcagg 1740  
acatggggag ctaagttagc cattgcctgc ggctttctcg gtttgcggt gaagaccagc 1800  
agaaactcaa actggggatt ccaggtatca gcttctgga gtagagacca gaccagtagc 1860  
tgactgtgtc cgccgagccc atccccgtgt aatgtgaaaa cagcctctga ggctcccatg 1920  
ctgggggtgc ccaattctc tctgggcgac acccagggt ccaccgggag ccagaggtgg 1980  
gtccagtgcc aacgagagcc gtcacctgcc acagccaaga gagccctcgg ctccccacac 2040

cagccatcga aggccctgag gccctggacc ggcggcagac tggccctggg catgaggcca 2100  
cagagcaggg ccgaagggag gggacagagg gccctggaag gaaggggtctc ctgctgccac 2160  
ggtgggcact cagaacttct cccacactga ccagggctg tgggcatcct cagactatcc 2220  
cagaggcatc gcaagcctca agctgcagca ttgcacggca ctcaagggt atgaccacgg 2280  
aggccgttca gtcgcttctg tttagaggaa ggccccctac ctcttccaca ccctgccctc 2340  
ctatcccttc cacaccctgg gctgcgtgag ctccccgcaa cccagggca ccctgccctc 2400  
ctacctgtgg gggtttccag ccctgaggtt gaggaacaaac ctctcgtgtt taacttggga 2460  
ggagatgtgt acgttccttt tcttttttgg actctgagta tgaggcaggc tgttctgagg 2520  
tccccgtggg gtgagcctgt ctgtcctccc tcagagccca ctgttcctat catcatctag 2580  
cacctgtccg gttccccacg tgagccttgg gcaggacgct gcagtgttga tggtttgggt 2640  
tacgtggcgt ttacctgggc gccgtcctta ctgaaaaagg aaacgtccac actgaatgtt 2700  
tctggggcgc gtggtgtgtg tcaggcgccc accctgtccc actctcccca agggacagta 2760  
gtacggcaca ctggggccac cagccagctc aactcatcct cctgtgtcac gcacccccga 2820  
gggcgcagga ggcctgagga gtggctactg gagccgtgtg ttaggcagag gcttctgacc 2880  
atgtctgagc tctttacccc caatctcgca gctggcggat tcccatgccc ggtgcagcct 2940  
gttgccagcc agcctttgag acccagagct ccagggcttg tcagaggcag catggggctc 3000  
cagtggtcct gagtctcatt tccctgcctg ctcttttaggc ctttggcacc catggtcact 3060  
tactggctt tccatttggc ttctcacctg ggaaatacaa aaatagcccc tcctgaagat 3120  
aaaatcattc agaaacag 3138

<210> 1297

<211> 2847

<212> DNA

<213> Homo sapiens

<400> 1297

tacttgggtgt tttgatagag ctgtaacacc tacaatacca ccagtagcat tggttcttga 60  
gaggagacat agcatgcatt ccctcagata taatccttca ataaatacta ctgaagcagc 120

tctctaccag gaaggaaaac agcactcatc ctcactcctcc cgtggactca ctgtttttgt 180  
cttgcctatt ctgtgctgta attctcacat cttaactaaa ggagctacca caactaaaca 240  
aacagacaaa aaaaaatcag agtatacctt cacaaaataa gcagtctata tgaaataagg 300  
gagttgcatt tggttttttt gtcagtaagt ctgtaatgct cgatatatca actttcagaa 360  
ttacagtaag tcagagcaaa gagaatgaaa tctgtagctc agcttgttta tttttttggt 420  
ttgcttctgc tgaattttgt ttcccccaag tcagaatacg agtctttttg tgttctctct 480  
cttctcttat tcttccgaga agtgaagggtg gtgggtgtac agcccatatt tgtttacttt 540  
ttctgtagct catatatcta ttattactgg tggttttctta gtggaaattt ttctttcact 600  
ctcactttgg ctttacctcc aagtgccttc ttctcttggc tgcaattgag cactataatt 660  
tgtggccttc cggaggggga gccttggtgg tcagggtggag gaggcaggcc acattccaaa 720  
agtggagtgg taggtgttcc agacagagtg ctgattcaag agtgagtagg ggtgtaggggt 780  
gaaagtggc tactaattca agcctcacct gaggcagtgt tgctcaaaca gaaaagtgcc 840  
ctctctaatt agctgcccc atagcgctt agattaatga cagccaacta acttagaaac 900  
cccttcaga gtaagctagc caaacaatag atgttccatg gacatgaca agagctaatt 960  
ttcttgtgct aaggaatttt tagctcttgt atttgtgggtg gactgcctca tcacctaattg 1020  
aaggtgaagt acattctcca ttttaggagg cagagttaaa acattttcct cctgtggatg 1080  
tctgattaga aaaaaaaaa atctcctact tcaactgtacc tttccagcaa gtcttatect 1140  
ctcaaagcac tgtgtaaagc tttgaaatta actggttcag tgagtagatt atattttggt 1200  
actttcctat ttgtccttaa aaacattttc tgactgttgg atgtaaaaga agatattaat 1260  
gaaaggttga aacttcatta tcattgattc tttttaaaca cccccctcca taacctgctg 1320  
tttctgcat ttgaaatagg aagattgtga caaatgattt cattctgaaa ttgctgttga 1380  
atagaaagtt ttgatattat aactctcatt caattcaaag gatatagatt tcatttacct 1440  
ttatataaaa aatggtgata gtcatttttc ctccatattt gtactctgaa agaaatatat 1500  
tctaggcttt ctcatagtt agcctggcct taaatgaaat catggaaaca aataattcac 1560  
atcttaagta ttttttcagt tttctagaaa actttatgat taaaagttgc taagttcatt 1620  
tcacattttt cccaagggtg gaaatacaat tctgtaaaga catttcata aacaataatt 1680  
tatgggtca cactgtgtgg tactttcaaa gttatgtgga aagtgtttct tttgatctcc 1740  
tctgaaacat gtgactgaaa gaataatacc ttttgtggtc tcaaataatt cagttttcag 1800  
tcgtgaactt taaaattcac atgagcaaaa agaaacaccg cctgaaaacc aggcagtttt 1860

tcttcctag atgccagaa acattttgag ccattccaaa ccactgggat catttgctct 1920  
 gatttcagat aagcagaata aaataaacia actcttgccc atgtgggaag tggttctgct 1980  
 gtctcttggt ctaaccctgc aaagcctgaa tgtctcccca gcctcttga atgggtctca 2040  
 ttgtttatatt attgtgcttt tcacaagtgc ttgtaactgt acccttggtt tactaatagc 2100  
 tttcttctaa agtgggttga catttcagtt aattttcagt gtcctcaatg tttttcctta 2160  
 aattgggcca gactgactgg cctgttttagt tagtctcgta tagattgtag cacataaaaa 2220  
 taaggaacat ttattagata tttttgaatt tgttttcttc ttttaagaaat gtcaggtcaa 2280  
 gagaaatttt tctttcacat tcttcaatta tttgtgttga taaataattg aatagaagtt 2340  
 ttaaacctgt gactatccta gaagttttta gtttttacct taaaacctat tagatatgta 2400  
 aatgtataca tttttattca tttttgaatg taattctggt taaaatctta acatgacgaa 2460  
 atttaggaaa ttgttcgaag tcttgtctag atgagcaatt ttgaacctt tacataacat 2520  
 tcagatTTTT attgcattta ttttaaaaac atacataaaa cttttttcat ctgtagaaat 2580  
 aaactagaaa tgaaactaca gggaatattg tccttgtacc aggaagtaaa atctaccaac 2640  
 ttaggtctc tattggcacg gaaatgggca tcattaggca aaaccagaa acaggttcca 2700  
 gtacatagtg aaccttactg aaatgaagaa atgacatttc cattaaatag gaaaagcatg 2760  
 gattattcag taaatattat ggcgtggctc tcaccaaaga tagtactata aggaaattcc 2820  
 aagtatagta atagcacaaa tagaatc 2847

<210> 1298

<211> 2130

<212> DNA

<213> Homo sapiens

<400> 1298

aaaacctggt aagtgcagtt gccctgtgat ggcaggtgga acccggtgt gcacacagct 60  
 aggcttatt gttcccatg ctgttcctg cactgttccc catgctgttc cctgcactgt 120  
 tctctgtgct gttccctgca ctgttcccca tgctgttccc tgaactattc cctgtgctgt 180  
 tcccatggtt gttccctgca ctgttcctg cactgttcca catgctgttt cctgcactat 240

tcccatgct gttccctgca cttttctctg cgccattccc catgcgttcc ctgcactggt 300  
ccccgcgctg ttcccatgca tggtccccgc gctgttcccc atgctgttcc ctgcactggt 360  
cccatgctg ttccctgcaa tgctccctgc actgttcccc gcactgctcc ctgcactggt 420  
cccatgctg tttctgcac tattcccat gctgttccct gcacttttct ctgtgccgtt 480  
cccatgcat tccctgact gttccctgca ctgttcccca tgctgttccc tgcaatgctc 540  
cctgcactgt tccccgact gctccctgca ctattcccca tgctgttccc tgcaactttc 600  
tctgtgccgt tcccatgca ttccctgcac tggtccctgc actgttcccc atgctgttcc 660  
ctgcactggt ccccatgctg tttctgcac cgttcccat gctgttccct gcagggttcc 720  
ctgcactggt ccccatgctg tttctgcac cgttcccat gctgttccct gcagggttcc 780  
ctgcactggt ccccatgctg ttccctgcac atttcatgcc ccagacctc ccattctccc 840  
accaacacac tggatcatcc ttcaaaagct tctgtagtgt ctccaaccac tcaagtgtg 900  
ggactgggtg ggggcaggat ggagttagac cctgcagacc ctggccttcg aggtccgtcc 960  
ccctcagacg tctccccaa cgccatggcc ggctcttgaa ggccacagag agatccacgt 1020  
gctggacacc gactacgagg gctacgcat cctgcgggtg tccctgatgt ggcggggcag 1080  
gaactttcac gtcctcaagt actttagtaa gcttggccct ggggggctct gccagctgc 1140  
tgctctcca gggactgcc gccagcccc cctgtgcccc acagctcgga gccttgagga 1200  
caaggaccgg ctggggttct ggaagtctcg ggagctgaca gcagacactg gtctctacct 1260  
ggcggccccg cctggtgagc ccaggggcct tggggtggag gctgggctgg gccctgtggg 1320  
ctgactctgc agtcctcat gctggcctat cctgcagtgc ggtgtgccga gtcctgaag 1380  
gaggtgagcc tgacccccga ccctggcctg tgctgaagtt cccgggcccc tggcccagtc 1440  
cctggccctg tcaggagccc ccgtggctcc gcctcccggc cctgggctgg gccttctcac 1500  
cccttctgt gaacaggaca ccaaacacca ctggtgggca gctccagaga tgagtctgtc 1560  
tcctggtttg gaaagagctg gaacctccag agtggtgacc ctaggctgcc aggcaggac 1620  
cctgggaggc tggggtcacg ggggtgcagag ctgggtgggg caggggagca gaaatggcgc 1680  
cttttcttcg gtgttccgtg caggactgcc ggctgcttct gccccgaag gtcccgtcgg 1740  
cggcggggca cagatcctgc gggcgctgcc tcagggtcc catgttgggc actgcagaaa 1800  
cccagtgtct ccctcacctc gctttgtctt ggccctagag gctgggcctg ttacccatt 1860  
ttgcagattg agaaggcgt cagggagctg ggtgctttgc gaaaaccag gcagcgagga 1920  
cagaagtccc gccgtgtggc cctcatcgaa gccccgtggg gcctccagag accacacggg 1980

cctgagcccc tgcacttctg tgtcgcagga gctgatttaa tggagttcct gcctcagacc 2040  
acaaggttcg gcgcgccccgc ccaccctgc ccctcctggg caccctgccc accaggtcac 2100  
ctgcacctgc tttgaataaa ctgtgaagtc 2130

<210> 1299

<211> 2016

<212> DNA

<213> Homo sapiens

<400> 1299

tgccatggta tttcaacatg aataattttt ttagcaaaaa attttattat ggttgggatt 60  
acaggcgtga gccacggcgc ctggccaggg cttcattctc tataaaagca aaaaaacaac 120  
atgcttaaga ttttaagatg ttttaatactc aattttgcac ttcaaaaata tattaagagc 180  
tgattctgtt gaaagagcgt gtgtgtgtgt gtgtgtgtgt gtgtgtgtgt aggggtggaa 240  
acaatgatag agattctaaa taaatccaag aactgtgaag ggttcagtga gaggaggaca 300  
ggcaggggca tctggacatg ggtgtgcatg cacagaccgc gctgtagccg ggtggctgat 360  
cagcagcacc ttgaagactt tacagagtgt ttctgccatc tgcaccatc ctggccccgc 420  
ccggccctgt ttccctctt actgcagctc atcttccccg acctggtgga ggggctggtg 480  
ctggtgaaca tcgaccccaa tggcaaaggc tggatagact gggctgccac caagctctcc 540  
ggcctaacta gcactttacc cgacacgggtg ctctcccacc tcttcagcca ggaggagctg 600  
gtgaacaaca cagagttggt gcagagctac cggcagcaga ttgggaacgt ggtgaaccag 660  
gccaacctgc agctcttctg gaacatgtac aacagccact ttcctggtgc tctctgggcc 720  
cagctggtgc tgtagggcca cgcaggcagg ggcgtcaagg ggtttctctg cccaaggaag 780  
acagaacatg gagaaccgtc agggcaggaa cccacagac tgtcccttcc agcccacact 840  
ctgccacctc ctggccctgt cccaattctg agccaaggcc tccccagggc agaagttgcc 900  
tggtcctctg tccccacagt gacctgactg ggggtgaggg agaaggagga gagagcccat 960  
gtgtggtgtg tgtgcccctg agaactttgt ggtgactgcc tttgggagcc cgcaggtggc 1020  
cagaggcagg ggtagctgag ttcctggaga cccctttttt gccccagggt tccccaggg 1080

gcaacgccat cagtagcagt gtggtgtttc aggcagagct ctggccaggc tgtgccagtg 1140  
 tgtcccgac gcatcactaa ggaagagaga gtttathtag tcaactggcc caaggcagcg 1200  
 aggtttctac agtcccacac cccatagccg cctgggctgg ggcttactgg gggctgaagg 1260  
 ttctggacat gaacaagggt caggtagaag agaaaggctt cccctacacc ccagcctcct 1320  
 gctgtcccct gaagcccagg actgcgttgt atgctttcca tccactcacc ttaccccata 1380  
 gcatcttgcg gccagaaaac cagagccatt tgtctcagac cctaaatcaa taatcacaaa 1440  
 ccccaaaacg ggagagagca gtgaaaacat gcagggtgtt ggacggggga agggttgtgg 1500  
 cgggtgttct gaggctgaga ggacacctat atgcgtatit cctctacaca catcaccccc 1560  
 cttctataat ctttaagccat gactagcctg gtggcgtgtt agtttctgcc cagttctacc 1620  
 ccctcatgtg cttctttctga atactgaatg tgactgtttg aaagctggta gaattcatcc 1680  
 ctcttactgt agataacact gcaaactctg gaattttgtt ttttgctgtt tccagatgta 1740  
 tctataaata tctatacatt atatgtgtgt gtgtgtgtgt gtgtgtgtgt gtgtgtgtgt 1800  
 acatcgggtc ctcccatgtg tgggtgttct ctggagggtg tctctttggg caaggtgaac 1860  
 ttttaatgtt tattattttc ttctccgcac aaagtaaaga gcctaatttt gtgtattctg 1920  
 gtggctgctg tcatgagatg ataaaatgta aaacaaaact ctagtcaacg tagaaagagt 1980  
 taactgtgct gaaaaactaa taaagaacct aagaag 2016

<210> 1300

<211> 2396

<212> DNA

<213> Homo sapiens

<400> 1300

ttttaagattt gttaggtggg accagcaata tttatgtagg gcaaattttt ccacaccact 60  
 gaggcaaaac tcttttgtgt actcaactca atgttcaatg cattaagaag tttttcttgt 120  
 cagactggca gaaacatgca caatttccag ttctttgtga acgctggata ctatttcctt 180  
 taatcctttc tgataggtct ttccctggcc tcctgtagtt ttctcagata catgtgctta 240  
 tcaatactct gatgaatact caaaggaggg catttttcag atatgctggg ttctatctct 300

ttgcagctct gtactctctg atactctgtc ctttgaactc tagccacatt gttttttcca 360  
gactttcaac tcttggtactc tgcagggctc catttgggtt ccctgtccca atgccacagc 420  
ccggaatctc tcttaaactt gagataattg ttggactcac tcacctcatt tgtattctgt 480  
ctcccaggga taactgtcct tcttgccctc tgcccactgt cttgaatacc atagtttcat 540  
ttattatatt tgatttgtag ttgttttagg tgagggagta aatctagtca ctgttgctcc 600  
aacttgaata aaagcagaag tctccctggg gaatttttga aaaagacaac ttcctttttt 660  
tttttttttt tttttgaggc ggaattttga tctttttgcc caggctggag tgcaatggcg 720  
tgatctcagc tcaccgcaac ctctgcctcc cgggttcaag cgattctcct gcctcagcct 780  
cccaggtagc tgggactaca ggcattgtacc accacgcctg gctaatttgg tatttttggg 840  
agggatgggg tttctctgtg ttgggtcaggc tgggtctgaa ctccccacct cagggtgatct 900  
gccccacctc gcctccaaaa gtgctgggat tacaggcgtg agccaccatg cctggcaatt 960  
gctacaaaga gaataaaata cctaggaata caacttaca gggttgtgaa ggacctctgc 1020  
aaggagaact acaaatcact gctcaaggaa atgagaggac acaaacaaat ggaaaaacat 1080  
tccatgctca tggataggaa gagtcaatat tgtgaaaatg gccatactgc ccgaagtaat 1140  
ttataaatc aatgctatcc ccatcaagct accattgact ttcttcacag aatttgaaaa 1200  
aactacttta aatttcatat ggaacccaaa aagagcccgt atagccaaaa caatcctaag 1260  
caaaaaagaac aaagctggaa gcatcacgct acctgacttc aaactacgct acaaggctgc 1320  
agtaacccaa acagcatggt actggtacca aaacagatat atagaccaat ggaacaaaaac 1380  
agaggcctca gaaataacac cacacatcta aaaccatctg atctttgaca aacctgacag 1440  
aaacaagcaa tggggaaagg actccctatt taataaatgg tgctgggaaa actggctagc 1500  
catatgcagg aagctgaaac tggatccctt ccttacacct tagacaaaaa ttaactcaag 1560  
atggattaaa gacttaaatg taagacctaa aaccataaaa accctagaag aaaacctagg 1620  
caataccatt caggacatag gcatgggcaa agactttatg actaaaacac caaaagcaat 1680  
ggcaacaaaa tccaaaattg acaagtggga tctaattaaa tgaaagagct tctgcacagc 1740  
aaaagaaact atcatcagag tgaacaggca acctacaaaa tgggagaaaa cttttgcaat 1800  
ctatccatct gacaaagggg tgatatccag aatctacaaa gaacttaaat ttacaagaaa 1860  
aaaacaaccc catcaaaaag tgggtgaagg atatgaacgg acgcttgtca aaagaagacg 1920  
tttatgcagc cagcaaacad gaaaaaagct catcatcact gttcattaga gaaatgcaaa 1980  
tcaaaaccgc aatgagatac catctcatgc cagttagaat ggtggtcatt aaaaagtcag 2040

gaaacaacag atgctggaga ggatgtggag aaataggaac acttttacac tgttggtggg 2100  
 agggtaaatt agttcaacca ttgtggaaga cagtgtggca attcaccaag gatctggtac 2160  
 tagaaatacc atttgacca gcaatcccggt tactgggtat atacccaaag gattataaat 2220  
 gaactcccgga ccgcaggtga tctgccccgcc tcagcgtcca aagtgtggtggg attacaggcg 2280  
 tgagccacca tgcctggcaa ttgctacaaa gagaataaaa tacctaggaa tacaacttat 2340  
 aaggacctct tcaaggagag ctacaaacca ctgctcaagg aaataaaaga ggacac 2396

<210> 1301

<211> 2747

<212> DNA

<213> Homo sapiens

<400> 1301

taccacctg aatcaccgag tacatgttgc ttgtaccgtc aggctcttgg ttcttggccc 60  
 ctggccctat gcctgcaaca ctgtcacctg cacgtggatt gggaaccaca tagcccccg 120  
 acctgctaag gccattaagg acaggatggt gatgcctcgg ctgactgacg tgagaagatt 180  
 gtcattgacc atggcctcta ctgctgtcct accaacagaa acttcataat gttgtgcagg 240  
 cgttaccact acctagtacc agaacattgc catcaccccc aaaataaatc ttgcattcat 300  
 taagcagtca cccctatatt ccccatccc tgtcaaccac tgatttatgt tctgtctcta 360  
 tggattcccc tgttcgggat aattcacgta aatggaataa cacaatagat gccttttacc 420  
 atgggtttct ttacttagg atgttttgta gggtaatcca tatagcatgt atcaggactt 480  
 catttttttt tttttttttt gagatggagt ttcatcttc ttgccaggc tggagtgcag 540  
 tgggtgcagtc tcagctcact tcaacctctg ccttctaggt tcaagcgatt ctcctgtctt 600  
 ggcttcccaa gtagccagga ttacaggcgc ctggcaccat gccagctac tttttttgta 660  
 ttttttagtag agacagggtt tcaccatgtt ggccaggctg gtctcaaact cctgacctca 720  
 ggtgatccgc ctgcctcagc ctcccaacgt gctgggatta caggcgtgag ccaccatggt 780  
 cagccttcat tcattttcat ggagaaaaat atttcattgt atgagtatac cacattttgt 840  
 ttatccattt atccattgat tggttgtttc tacttttttt tagctattat gaataatatt 900

gctgtgaaca tttgtgtaca aggttttagt ggacacaagt ttttattttt cttgggtata 960  
tatctaggag tggaattgct gggtcattat gtaattctgt tcaacttttt gaagaacttc 1020  
ccaactgttc tccatgggtg ctgtgccatt gtatattcct accagcagtg tatgaagtta 1080  
caaattttct cacatcctga gaaccccttt attattttct gtttttcttt ttgattatag 1140  
ccatcctagt aggtgtaaag tggatatca ttgtgatttt attttgcatt tccctaaatg 1200  
attaatgata ttgagcatct tttcatgtgc ttcttggcca ctagtatatc ttctttgaag 1260  
aatgtctat tcaagtcttt ggcagtttct aaatgagtta ttgtcttttt gttgttaggt 1320  
tgtaagagtt ataatctgga taacagatcc ttattagata tgtaatttgc acatatatttc 1380  
tcccattttg tgggttgtct tttgtctttt ttatttttta ttgcttgtgt tttgggtatca 1440  
ttattgataa ttcattgtta aattaaagg catgaagagt tactcttact ttttcttcta 1500  
taatttttag ttttagctct tgtattcatg tctgtaatca attgaagtta atttttaata 1560  
tagtatgtgt taggagtcca gcttcattgt tttgcatgta tctatgcaat tgacccaaag 1620  
tgatttgttg aaaaatatta ttttctgatg gtatggctct gacacccttg tagaaattca 1680  
attgaagata tatgtatgag tttacttctg cagtctcaat tctattctat tgggtctaat 1740  
gtttatcttt atgccagtac cagcctgttt tggttatttt agttttgtaa taaaatagac 1800  
aaacatttgg cggattaatc aagacaaaaa gaaaagtata tagaaataat attatgaaag 1860  
aaaaggggga gcatattgaa aaacaccata aagattaaaa agattaaggg acagtgttaa 1920  
caatttatgc caatagggtt tgaaagttaa gagaaaatag acaaattcct agcaaaatat 1980  
aaattatcaa aacctactca agaaaaata gaaatcttat atagtcacaa ggtattaaat 2040  
attcaattct tcctagagac ccaaatatat gctttctacc cgtaactcac tgtaaataaa 2100  
aagaaaggga taatatattg tgcaaactct agtcaaaaaa aagttggaat gacaatatta 2160  
atataaaca aagtggactt caaaagaagc aatattatca gagagaaaga gggcactgct 2220  
tggtgaattg cccctgata aagacataac aataccggaa gtaaaaattg acataactgc 2280  
aaggggaaat tgacaaatcc acaattatat ttgggattta aatgctttac tcttaataat 2340  
taataaaagt tagctaaaaa attaatTTTA gctaaataaa ttagctaaaa agttaacaag 2400  
gatagatctg aacaacacta ggataaactt gtcctaattg acatttatag accactataa 2460  
ccaaaagtgg tagaattcac aatttttgca agtacacatg gaatattcac caaaataaac 2520  
catatcctga ttataaaaat aaactaaca actggcttct ctcacttagc aatatgaatt 2580  
taaatttccc ccatatctct tcatggcttt atacctcatt tccttttatt gctgaataat 2640

gtttcatttt atggatgggc cataaaatgt ttatctatgc acctatagag ggacatcttg 2700  
gttgcttcca agttttggcc aatattaata aagctgttat aaacatt 2747

<210> 1302

<211> 2604

<212> DNA

<213> Homo sapiens

<400> 1302

gtgctgcccc aagtgcagtc caggttatcg tgtgaaggag gcctgcgggg agctgacggg 60  
cacagtgtgt gaacctgcc ctccaggcac ctacattgcc cacctcaatg gcctaagcaa 120  
gtgtctgcag tgccaaatgt gtgaccagg taagaggcca gcacagccgg cccagtctcc 180  
gcttgggcag cctggatgcc cccgcacct gcacctctc tccatggcca cagtgcccc 240  
ggaaggcccc ggctgcccc ggccaggctc caaccccatc tccatggatg caccctgcag 300  
gggacgcctt gaggtcagcc tccggcccc gtccacctct gtctcacctc tcactttgtc 360  
accgccagggt gggccatcct gagcttggcg actgacctt atccctcgtc cttggctcct 420  
ctggtgcccc ggggtgggtgc ccagacctct cctgtgcccc cgctccctagc tgcaaagtgg 480  
aatgggatgg tgctgggact ctccggccgg cactcgggcc tgctgcttcc ccacagggt 540  
tcttgtccct ttctcctcca gatattggtt cccctgtga cctcagggga agaggtcacc 600  
tggaaggctgg tgcccacctg agtccaggca gacagaaagg ggaaccagac ccagaggtgg 660  
cctttgagtc actgagcgca gagcctgtcc atgcggccaa cggctctgtc cccttggagc 720  
ctcatgccag gctcagcatg gccagtgtc cctgcggcca ggcaggactg cacctgcggg 780  
acagggtga cggcacacct gggggcaggg cctgagccta caggaggga cagggcaggt 840  
gggctagcca tgaacagaag aggaagctgg agtgctttgg gggttcatgc atgtaggctg 900  
ggatttgggg ctacacctc aacctgcatg ccagttcca tgccctccc ctcttgtgaa 960  
agcacctgtc tacttgggct gaggatgtgg gggcacagggt ggcaggtag gctgccctca 1020  
ggaggggccc agggccagct tgtacccac ctccaccagt acctgaagaa gtggggctct 1080  
caccctacct gcctctgcca ttggaatggc ctggtttgca cagatgggaa acccgtttgc 1140

ggggtgggtg tctgggtggg cacgtggggc gaggacctgc ctgcgggacc ctgccctgga 1200  
 actgacagtg caagctcggc gtcctgcccc tctgggcaga aggctggttt ctcccatcaa 1260  
 cgaagccctc ccaggacctt cctgcaagcc ctcgtcccac acgcagctct gccgtccctt 1320  
 ggtgtccctc ccggcctcag gtcttccatg ctgggtacct ctgggcacct cgtttggtg 1380  
 agccaggggt tcagcctggc agggcgccct ggcagcagtc cttggcctgt ggatgctgtc 1440  
 ctggcccgtg gatgggtgtc cggcctccac gtaccctctt cagccctcc tcttgactc 1500  
 cagccatggg cctgcgcgcg agccggaact gctccaggac agagaacgcc gtgtgtggct 1560  
 gcagcccagg ccacttctgc atcgtccagg acggggacca ctgcgcccgc tgccgcgctt 1620  
 acgccacctc cagcccgggc cagaggggtgc agaaggagg caccgagagt caggacacct 1680  
 tgtgtcagaa ctgcccccg gggaccttct ctccaatgg gaccctggag gaatgtcagc 1740  
 accagaccaa gtgcagctgg ctggtgacga aggccggagc tgggaccagc agctcccact 1800  
 gggatatggtg gtttctctca gggagcctcg tcatcgtcat tgtttgctcc acagttggcc 1860  
 taatcatatg tgtgaaaaga agaaagccaa ggggtgatgt agtcaagggt atcgtctccg 1920  
 tccagcgga aagacaggag gcagaagggt aggccacagt cattgaggcc ctgcaggccc 1980  
 ctccggacgt caccacggtg gccgtggagg agacaatacc ctcatcacg gggaggagcc 2040  
 caaaccactg acccacagac tctgcacccc ggcgccagag atacctggag cgacggctgc 2100  
 tgaaagaggc tgtccacctg gcggaaccac cggagcccgg aggcttgggg gctccgccct 2160  
 gggctggctt ccgtctctc cagtggaggg agaggtgggg ccctgtctgg ggtagagctg 2220  
 gggacgccac gtgccattcc catgggccag tgagggcctg gggcctctgt tctgctgtgg 2280  
 cctgagctcc ccagagtcct gaggaggagc gccagttgcc cctcgctcac agaccacaca 2340  
 cccagccctc ctgggccagc ccagagggcc cttcagacct cagctgtctg cgcgtctgac 2400  
 tcttggtggc tcagcaggac agggcccggg cactgcctca cagccaaggc tggactgggt 2460  
 tggctgcagt gtggtgttta gtggatacca catcggaagt gattttctaa attggatttg 2520  
 aattcggctc ctgttttcta tttgtcatga aacagtgtat ttggggagat gctgtgggag 2580  
 gatgtaaata tcttgtttct cctc 2604

&lt;210&gt; 1303

&lt;211&gt; 2824

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 1303

ttcaaataca	gaaataacctg	tgtattcagt	tacatgagta	gctgtctttc	tgtgttttatt	60
aatacaatgg	gctgaataaaa	aacagctgtc	ctgaggttat	ctggcaagat	gaggaaagag	120
aaacaaagca	agtcattatt	gtaccttctc	aagataagtt	ctttattctc	atccacactc	180
ttccatcagc	atctccctgc	ccagaatfff	cacaatgatc	ctatactaaa	acctaactca	240
gtgtcacggg	tattaaccag	tacgatagca	aggacacatg	agaatctgtt	aatacaagca	300
catgcatg	cgagggctca	tgtgtgagcaa	gcaccattaa	caccctcct	ccttcccagc	360
gccagcacag	cactgctcaa	cagacatgta	aacaccgggc	cttttatgca	cagaagcaag	420
gggagcctca	gaccaaggc	cctatgcaca	acgttgtgtg	attcccttg	aacggaaagc	480
tcagttagca	aaaggaatff	gggtatctga	taatctaaac	atcattccca	ttgttaaagt	540
gcttaattat	tcacatggca	caaaaaccca	ggttttgcaa	cccatagtca	aatccagatg	600
caaacatgga	cgggtaacac	ttaaaatccc	tgattgtaca	gatatggccc	atctgagatc	660
catattggga	agctgcacaa	atggaaagct	ataaaacaca	aacactcttc	tttcataaaa	720
gacatffff	cagatagctg	aaagcacaat	gaatgttgag	gtatffff	aacaaatgga	780
gaagccaagt	tcaagggaag	tcaagtcact	tgctaaaaga	tgcaaagtta	gaagtcaaga	840
agtgacatct	atttcgggtgc	tctgccaatg	aaagtgattt	ttattccttc	cctatagaat	900
ctaaaagaag	accaggtata	gtggctcaca	gctgtaattc	cagtgccttg	ggaggctgaa	960
gcaggaggga	tcgcttgagg	ccagaagttc	aagatcagcc	tgggcaacat	agcaagatgc	1020
tatctctaca	aaaaaaaaat	aaataaaaaat	aaaaatcagc	caggcatggg	ggtgcatacc	1080
tatagtccta	gctgcttggg	agactgaagt	gtgaggagga	tcgcttgagc	ccaggagttc	1140
aaggctgcag	tgagccatga	tcatgccact	gcactccagg	ctgggtgaca	gagcaagacc	1200
ttgtccctta	aaaaatffff	tttcaaagaa	tctaaaagga	aaaagggaag	actactgagt	1260
tcatgtacag	ctcaaagaag	tggaataggg	aagtttaaaa	gaaaaggga	aagaaaacac	1320
acacacaaga	atagacactg	ttggcaaccc	tacagagtca	gagtttgaaa	gtgagagttg	1380
gaaacttgac	ctctgagttt	gctggaggaa	gccagcaaca	tgatttagaa	aggataatat	1440
aatcataatg	gcaggaagtg	agcacagtct	tcttggctgg	agaatctcag	ttgcagtgtt	1500

tggggcagac tgactggaaa tgatgctatg tcggggacca tgtttgaaag cctaaaatct 1560  
 gagttgacaa ggagatgttc catggaggct ctgggaaaga gggactcgaa ggcagacccc 1620  
 cacacagcgg actagtaagg tctcgctctg tcacccaggc tggagtgcag tggcaccatt 1680  
 tcggctcgct gcagcctcaa cctcctgggc tcaagcaatc tttccacctc agcctcctga 1740  
 gcggctggga ccacaggtgc atgccaccat gcccaggtaa tttttgtact ttttgtacag 1800  
 acagggtttt aacatgttgc ccacgctggt ctcgaaactcc tgagctcaag cggctctgcct 1860  
 gcctcagctt cccgaagtgc tggaggtgtt ttatggattg agtactgttc agttgtaccc 1920  
 tatgaaagtg acccaccaca atggcctgtt ttcctgagca attctagaga gacagcagaa 1980  
 ggggctggtg gctcccgtga ggctagaagg gcagaacagc agaggaggag agggttggaa 2040  
 caaaattggg cagtggcctc tgtgcttgct ggctccccag cccaagccg cctctctgtg 2100  
 ggaaccaggg aacattcata ctgctcgaaac gtggctcttc ccacagtcag acaccactgg 2160  
 ccagccagga tctcccctcc tgttgaaaaa tgctctccct tgcagctccc actaggaaac 2220  
 ctggaaggcc aaactgttta tgacattgtt tccctaaaat gtgctcagac accatgtttt 2280  
 ataaagtttc tgtctcttct ttctgttaag aaaggagaaa aaggatccca gctactcagg 2340  
 aggctgaggc atgagaattg cttgaaccag ggaggtggag gttgcagtga gccgagattg 2400  
 tgccactgca ctccagcctg ggcaacagag cgagactctg tctcaaaaaa aaaaaaaaaa 2460  
 aaaaaaaagg agaaaaagga aaaacatttc cagcactctt gtccacctcc tcagttggaa 2520  
 gtgtaataaa aagattcttc tggctgggca tgggtggctca cacctgtggt cccagcactt 2580  
 tgggaggccg aggtgggcag atcacttgaa gccaagagtt caagaccagc ctggccaaca 2640  
 tggtgaaacc ctgtctctac taaaaatata aaaaattagc caggtgtagt ggcattgcgc 2700  
 tgtggtccca gctactcagg aggctgagac aggagaattg cttgaacctg ggaggtggag 2760  
 gctgcagtga gccgagatca caccactgca ctccacccca gatgacagag ccacgcttca 2820  
 tctc 2824

<210> 1304

<211> 3133

<212> DNA

<213> Homo sapiens

&lt;400&gt; 1304

agctctgcct ccagggactt ctgctcgtgg tggctcatcg gtggcaccca gcccaagtcc 60  
cgggcttcgg atggctggtg tgggccctca gacccacagt tctgttggca ctgctgtctg 120  
gctagagcta gaaggcgggc tctgatggga agccacatgg ctgtgtgggg agctgccctg 180  
ttccctgagc gctgtgctgg acccctgcag gcacctggtg cttatcctca agacggagga 240  
tgttgtcttg aggaaactga ggctcagaga aaaggacttg cccagatcac agggccagta 300  
aaaggcagct ggctgactcc agcaggccca gggttctttg tgccacacca cctggacact 360  
ggctgtgctg tgagccgctg ctacctctg cagaagacca gtgcccaggg gccctatggg 420  
tgaagccctg ctggtgtgca gcaatggcat gctctgtggg gagctggaag cagagctgtc 480  
ctttggaacc cagagggaga gggagtgage actgagggga cacaagccg ggaggcgcag 540  
ggtgtctggg tagtgccacc agctccgccg tggccgggtt ccaaagacca gcctgcatcc 600  
ccacttgga cgaccgctgc aggggaagtgc atgtcctttg ggtcgggatg gtcacctgca 660  
tttatttacc tctggaagaa ggagacagtg ctgggactta cctcctgggc ctggtcagca 720  
gtccctgggt gcgtcatggt ggtccatggg cagacgtggc catgctgatg cacaggtggg 780  
tgtggctcct caggcttgag ctgtgcttga gggagcagtg gagggctgca gctgaagtgc 840  
tgggctgtgt gttcctacga ttggacaaaa catccttaga tgttaaaaac ccctatttac 900  
ccataagcat ggctgataaa gcagatacgt aaacgtcaga tgtacacaat atgatctgca 960  
aaaatggtgc ataccagttt gttaccccg gtactaaata ttttctttat gtctgccaag 1020  
tttttacatt ggatttgaga gattgtgac gctttcagtc acctaagtag cagccccgtg 1080  
cagggtgtgac aagggtgtca gggtgcccca ccagcccgac tattcaggga gcagtgtccc 1140  
gggtggggtg ggctgcaggc aacggccagg cctcctggag gagaagctgg cggccatgcc 1200  
gcatgggcag aggtaggcct ggaggcagcg gcagggatgg gacagggggc aggagatgtg 1260  
ggtatgcaca gggttggtct gggaggtagg ctggaaagg gctgggttct gccatagggc 1320  
ccagagcggg caggcgtccc gggagtcttg agcgcggcat ggtctctgcg gccctaattt 1380  
cgcagtctct cccagatca ccgcacagca gatcaccacc cctggcgcgc agcagaaggt 1440  
tgcctacgc gcgcagccgg cccttaagac ccagtttctt accacacca tctcccaggc 1500  
ccagaaactg gccggggccc agcaagtgc gacccagatc caggttgcaa aacttctca 1560  
agttgtccaa cagcaaacac ccgtggccag catccagcaa gttgcctctg cttcccagca 1620

ggcttctcca cagactgtgg cgctcacgca ggcgacggcg gccgggcagc aggtgcagat 1680  
gatccctgca gtgaccgca ctgcccaggt gggttcagcag aaactcattc agcagcaggt 1740  
ggtgaccacg gcgtcggccc cgctccagac tccaggcgct cccaaccag cccaggtgcc 1800  
cgccagctcc gacagcccaa gccagcagcc caagttacag atgagggtcc ctgctgtcag 1860  
gctaaagaca cctactaagc ctccgtgcc gtagtcaggg cagcagggt gcctctcatc 1920  
taaagcaaaa ctaccttctt cacagaaaac gctttattag tgaaccctgg gaccatgtca 1980  
cgcaagagat tcagcactgg gaaagatata attgaaacaa aatagtgtaa tcattttatt 2040  
aaaatgcatc ccacactgca ggacaaatgg tccttatgga gtgccgtgtt ctctgtacta 2100  
cgtgggtcat ggaaaaagtg acaacatggc ttcctctaaa tcatttcacc tttcagtcctc 2160  
caccgcacc cgtcccctag agccatagta ctgtgttctg aaagccattt agaatttctt 2220  
tgtgagcatg tagtgctttg cacgccacag aagccgtctg ccgtgtgtga ggagcataca 2280  
atggactttc taaagataag gcgtgggctt ccacagtgtc tgccagagtt tagttcttta 2340  
taccttactg aaaaatgcct cgtgggtctt gcagagggga aggcctgtct aaagtcaatc 2400  
atccgagatg ggttttccat tccaaagaaa ggcaatatgg ttccttcctt ccctcctaaa 2460  
atatgactta acttttaaga gaaatgttct gacaccacc taaacacaca aggcacgttc 2520  
ctggcctgtg ttcaaggga atgatcagtc attgcattgt tattccaaag agcagccaac 2580  
agtggcctcc cccaggccct accctgcaat gggattcgct ttcattaatg gaaacttctg 2640  
ggactgatgc ccaactcagt gcaactcaaga cgcatctcca gctttcgggg gaagctggta 2700  
ttggacatag tgtgttaaac agctcctgag aacctttggg acactctgcc atggctggcg 2760  
tgaggcccag aggaccacgc agaggcaatg gtagtacaga tgtcacagct gagggtagca 2820  
tgaggcctgg gctcagttag ccaggacgaa tgtgacagac accccttgct gccacagtca 2880  
gccctttgac gaaggtgggc tggtgattct ggaagtattg gctatagcg tgggcccagt 2940  
caactcttc ttgtggactt acgacagcag attttctcta ggataagctt gtgtggttct 3000  
gccagtgaag cagagaacca cctgtgtgtg tgtggaaggc gtgccgttga gggggaaaac 3060  
gaagcccagt atttgctact gtttttcctt tttttactat gacaggaaaa taaatgcaat 3120  
ttagtgga ttg 3133

&lt;210&gt; 1305

&lt;211&gt; 2750

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 1305

ttttagtaga gacggcgttt cactatgttg gccaggctgg tctcaaactc ctgacctcat	60
gatctgcccc cctcgggtctc ccaaagtgtt gggattacag gggtgagcta cagcgcccgg	120
cctacaaaat tttctagtta accatcaggc aatcaaagca cccactctg ccaagcgttc	180
tcagtgacaa gggtttctgt gctgtcaggc tgctcagcca tgctccctgc actctgcgcc	240
accttccctt gcactagggtg tgctacttac tagctgtgcg gcctcagtcc atgccgagca	300
agggtgcagg gaatgagcta aggcacagga agcgctcgga acagagcccg gggtaaaggt	360
gcgcgggtcac ggtaagcact atgacagccc gaggtggcag ggtactcacc agcggggcct	420
ctgactctgt agccggggccc tcattctgtg cctcatcctt gggctccttg accacctcct	480
ctttgatggc ttcttctctc ttgggtggctt cttccttggc cgcctcctcc ttctcaggtt	540
caggtgggga cagcaccttt tcaggaaggc tcagtagcat cttataaact ctatagccaa	600
aatccctctg gagcatctcc agaaacagct cggccagcac catcacctga tggggaggtg	660
ggagggtcca tgagcatcag gaagaaagac tgcttcaggc ccacaaatcc cagcccacag	720
cctccccaag actcttgaca cctgcctcaa aagagatcct ttcctttggc ctccgatact	780
ccacaatccc atggagggac aggtttacac agccagggcg tgcgatgaca gcaggttcta	840
gggggggtgg aggggcctct gggagatcag tgtccgtttc ctgctgtgtg gtggcctctg	900
gagtttctgc gttccgtcta gaagtgtctg ctgcttgctc caaggcatca ggtgcctgtt	960
cagtaggctc cgtttcctgt gacaacagct gaaatgagac cctctgggtc ccgggattag	1020
gccacctata tccccgctg ctggctaagg cacagcctta ccccttgctc ctctgggtt	1080
gggggagctg cctctgcagc tttctgctgg cacagggcct cccactctc caaagtaggc	1140
atgatgggtc agacatccgg caggtacacc accactgtct gaagccgccg ggggggtccc	1200
ggctgcaggt actgaaactc ggcaaagcgc cacctgcaca tggcaaaagg aggtactaac	1260
ttcttttagtg acaactccac gcagacacca cgttcacagg caagggttc agtttccagt	1320
cagcactcaa tgagcacaca ctgcgaacca agctttgaag acacaacagg aaagctacag	1380
accaagtcct caagaaatga tcagtcagtg gggaggccgc aaccacaaa gcaccctaca	1440

aggtgcaagg acaactccag ggagtctcaa gtgcagcctg gtggctcagc cagatttttg 1500  
catacacccc accctaccct gaggcaccag agggggaagg aacgggacta gggggcagag 1560  
agctaaccag cagaaagggg cagggaccgg gccttcccaa caaacctcc ccaacctggt 1620  
gcattggtgc agctgaggct caggaagccc actcaccact tggtacagcc gctcaaatca 1680  
atgccagtct gggcctgcgc acagcggatg gcggtacgca ccagcacctg cgggtcagcc 1740  
tgggggtcga ggccatccag ggaaggagac cattcacccc caaccagcac tgcctcctct 1800  
tctttcctgc ccagcaaaaa ctgcaagaag agatcaggga taaaaacaa aaaactacat 1860  
tacctgggtc tcccactgca gggcaaggct gccacccatc aggatgaagg cagccggaag 1920  
tggggaagtc caccacacag tgaggtctct atctgcaaac atgaaccagc cacctcgctc 1980  
tctctgacta gtcgtaacag ctctgagctg caccttcctc ctgggtgaaa tgagggtgtg 2040  
tcggctctga gatgcctcgt tttatgcatt caggaacagg agccgaacac taaaacatg 2100  
acaggttgtg cacattaccg gtgaatgcat ctctcctgc tctccagctc ttaccttaac 2160  
ctgcttcaga ggatgctctg gcgtctccct tggctcagcc atgtcatcca caaggagcat 2220  
gcaacaacga tacaattcct ccaaccccg ggaagagagc agcagtacct gtgcaggagg 2280  
agacactcag agctgccttc agcctccaga aatcagataa gtgagagacg cctgtcagct 2340  
taccttcgaa ctataagcgg ggtcactgtc tgcagtgatg ggctcagcac cagcgtctgg 2400  
agctgcctcc ttttcagaag agacctggat ccggcttgga tgatggaggg aaaagggtg 2460  
gctcaggggg aaggctgata gccaaactcag atgcacggac agaaaatctg aggggaccag 2520  
gaggctgcgg taacggcgct ggagttctag gaagtcacag atggggctac aggaagacag 2580  
caagggaatc cagactgagc aaagactaaa acattcgaaa tgaaaccatc aaagatttga 2640  
aaaaatgggc gaattttttt tcagtctgag aacttttgaa gtaaggcacc tctcaaggaa 2700  
gctagatcag atctgaccac ttaatttaca aactctagat ggcaaaagtc 2750

&lt;210&gt; 1306

&lt;211&gt; 2196

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 1306

tcggcaatTT taatcctcaa atgcaatcct tgtcagattg agatcacaga aacaacaact 60  
taaaataagt aaattaaaaa ggccaacatt taattaaagg acacacactg ttattaaggg 120  
gggtgtgtgt gtgcgtgtgt gtgtgtatgt gtgtgtgttg ctttatcttt ttaatgctct 180  
gtcttggaag ggaatgttca tatatatatg tatatatTTT atactcacct atttgggaaa 240  
gcagaagtga ggttatcgct tcaagtgact gcttttagcag tgaggttggT tatcattggT 300  
tcacgtgttt gtatctgaat gtgttaccat cagtagaatc tccagcatgt ggagaagaga 360  
gcttattagt catgtttctt ttttcagtgt tcatggggga gtttatccag atgttttact 420  
tgtttcagtc taccttagat tgtgttgaaa tgtcctcttc tgtggctcag gagaaagcgt 480  
agaaaggcca ttcatgaata gaaatgagag acccttttag caagtagaaa caacctcagt 540  
ttgctaaagg ttttctctt aactcttcac actcaccctt tttatatagg tttctactca 600  
ggtgacctga aggatatgag aaacatTTTT ctctctctgt gaaacactac cactcccaga 660  
ctttaacaca gacttttcat taaattccat tttaacattt taatgaaaaa ggtggctttt 720  
ttttttcatg tgccagtgaag agaggaaagt tctgctagtt atgtgagact cactttcttt 780  
ttttttgaga tggagattcg ctcttattgc ccaggctgga gtgcagtggc gccatctcag 840  
ctcgctgcaa cctctgcttc ctgggttcaa gcgattctcc ttcctaagcc tcccagtag 900  
ctgggattat aggcacgcgt caccacgccc ggctaatttt gtacttttag tagagacagg 960  
gtttctccac gttagtcagg ctgggtctga actcctgaac tcaggtgatc cgccccctt 1020  
ggcctcccaa agtgctggga ttacaggcgt gagccaccat gccagccct cattttcaac 1080  
agttttagaa ataattacta tctgaaaaga accagaatga cagaatctta gcactggtag 1140  
ttttacatag ggtgggtgtt tggctctaga taggtgtcct gtagaaatgt taaacacggg 1200  
tgagatgtgg gaagtggctg ttttctactg gagatggaga ggagccacct cccacgctg 1260  
agcatctgtg ggcatcatga acatttgga ctttaagccac aatcatttga atttttttgg 1320  
atgccccagt tgttttctt ctgtcaccaa caactttggg acttcctac tgcagaattg 1380  
tcgcatatta agtaggagac ctcagttgtt atggagtttt tctcctcct agatacctag 1440  
atctgtgaaa gaaatccaca tagcaaacgc ttgtctagag ctacatctct ggacattttt 1500  
tttcttttt ctgtagcaat agtgaaaaat ttcttattct tacagtccaa atatatgtaa 1560  
gtgtacttaa ttcttaagaa gtttattttg aactgacat tttagtggta ttgatgatac 1620  
agttctacct ttaattttat ttgttttttt ttttaatcat tagagatggg gtctcactgt 1680

gttgccgtgg ctggtcttga actcttgggc tcaaacagtc ctcctgcctc aacccccaaag 1740  
gtgctgcacc ctttaatttta acttgtttca tttaagttac atatttgaaa tgtcagactg 1800  
tactttatga actgccttaa attacttttc aaacaagatg ggttataaat aaggtgatgc 1860  
tttggcctat tatttttaaat atctacattt ttactttttt gtgagataaa aactaatggg 1920  
gctggacaca gtggctcaca cctataatcc tagcactttg ggagaccag agaggcggat 1980  
tgcttgagcc taggaattca agaccagcct gggcaacatg gtaaaacctt gtatctacaa 2040  
aaaaaataca aaaattagct gggcttgggtg gtaccacact gtagtcccag ctacagggac 2100  
agctgagatg ggaggattga ttgagtccag gatgttgagg ctgcagtggg caccactgca 2160  
cttcagcctg gatgacagag agagaacctg tctcag 2196

<210> 1307

<211> 1762

<212> DNA

<213> Homo sapiens

<400> 1307

actctggggc tggcgcaagc cctcattgac gccgggcgcg tgcgttccgc tgcctccagc 60  
ccctgggcac cgctgccgtg cgctcgctgg cggggagagg cctgcagaag tcaggccagg 120  
tgtctctctt tcccttgggc ccgcggccca accccatggc accaggcagc ccccagcgg 180  
attgcgacct ctgcgtcagt cgcgtcagt ccctagatac aggtgtgccg gagaagccca 240  
gggaagggat gcgtgacct cactacacc tgccccacga cgcggtggga cgcgcacct 300  
gaccctccc agagccgcgc ccaggacctt gcctgggcgg aaaatggcag ccgttgccgg 360  
gaaggagcgg cgagcgagag gcaggccccg gccagagaca ctgggagcca tccctaggag 420  
ggagggaggc gaggcgggct tgagccgagc cttcaagcca ctggcgagg cgccattgtc 480  
ctgtgagact tcgctgagaa aactcaaatt caaaggcatg gctctgtgag cgctgatgag 540  
gtgccccga cggctccctt ccacctcgac ctctggttct acttcacact gcagaactgg 600  
gttctggact ttgggcgtcc cattgccatg ctggtattcc ctctcgagt gtttccactc 660  
aacaagccca gtgttgggga ctacttccac atggcctaca acgtcatcac gccctttctc 720

ttgctcaagg tactgtccca gggccccac tctctcctgt catccccatt ctttgcacac 780  
 ctggcaggaa ggtgatgcta agccctgtgt cctgactcaa gcacgtcct gcctgctgct 840  
 ggggggtgaa ggctgtgaca gagcagcatg tccagggcct gggggccggg gaaggcggag 900  
 ctgccggtgg cctggaggga tggaaaatat gcccagaagaa agggcttttg atttgagcct 960  
 cagcctggcg tgccagtggg ggaagcagag aggtgttcag gtagaaggac ctaaagacaa 1020  
 ggctgtgctt gggaaaccgt aaaacatttg gggaggctga ggcagaagt actggaggtc 1080  
 caggagagg tcaaggacc actgggaaga gaggaagaag ccaggtggca ggagaggcag 1140  
 cagcagcagc tgaactccat cctctgccct ggagagccct gagatgtcac tgggagcacg 1200  
 agcaggaact gctggctttg cactttgcc agtaaggcct ttaaaactac tatagttga 1260  
 gcatccctaa tccaaaaatc tgaaatctga aatgctccaa aggagtctga aatttttta 1320  
 gcactggcat gatactataa gtagaaaact cggccaggcg cggtggctgg agcctgta 1380  
 ccctgcactt tgggaggctg aggtgggtgg atcacttgag gtcaggagcc tggccaacat 1440  
 ggtgaaaccc ccgtctccat taaaaataga aaaaattggc caggcgcagt ggctcatg 1500  
 tgtaatccca gcactttggg aggctgaggc gggcggatca cctgatgtca ggagttcgag 1560  
 accagcctgg ccaacatggt gaaactccat ctctactaaa aatacaaaaa aaagtagccg 1620  
 ggcatgctgg caggcacctg tagtcccagc tactcgggag gctgaggcca gagaatcact 1680  
 tgaacccggg aggtagaggt tgcagtgagc caagatcacg ccattgcact ccagcccggg 1740  
 caagacagtg agacttcac tc 1762

<210> 1308

<211> 2222

<212> DNA

<213> Homo sapiens

<400> 1308

atatgcacca gtgtcaacat accaggaaag aaacagcaaa cccaaaaatt tggatctgca 60  
 atggacagct cttacctga caaccaaggt attgctccct ccaagaagcc aatgccatct 120  
 tacaaatgcc aaagccactg ggctaaccag cagacccttt cccaaagagc cccacttggc 180

ttcaccggcc agtggacca ccaacgcaga ttccaatcag caagccactg tgggactgca 240  
cgtcactcac tttgtccagc tagatcaggt accttttttag atcctgtgtc ctcaattata 300  
ctggactgtc aactgcctga ggtaaggaaa ttaatctttt acttcttcag ccttcgcctt 360  
ctcaacttgt tccagctaca cttatcaacg gagttgagtt cttatcaggt cctcagacat 420  
ataaatgatg caaacctagt gccatttctg gtctggccta actctaaggt agaagagtta 480  
gggaataaaa gttaataaaa gttttcagta catttatctc cttccattgt tccagagcct 540  
tgtctagaaa aatctgtttt cttcactggg cctgtcggga gaaatctctt gaggttatct 600  
atcaggtcca gtcctacctg catattccta aagccacaga gaatgaggct atagcttcat 660  
gttttaacaa caggaaacca agcacaaaga ctgaaactat aggaccagg tctgtatcct 720  
ctcaggaag gcagaataac aatgtcatgt aatgatgatg ataaaaagg tctaactgtat 780  
caaataaaca ctaacactat cctgttggct aactgagccc ctctacctgc ccaagtccta 840  
ttcctgggct ggggagaggc aacaaacagt gccattagga gcaactgagtc tctcctccca 900  
cctctttctg aatgtcagt cattggtatc tcaggtgcca gtgctggagg ctgcagactg 960  
acctgcatg tcaacagctg attaaaacag ccatttttat ggcctgcttc agacacgcac 1020  
atattatcag aactaattag gctgaacaat ttcaaaaagt cctaagccac gaacaactca 1080  
aacctgtcag acaagtcatg cacctgacta cttcaaacac cctctttacc tgcagagtca 1140  
cgcaaggcag agctttcact cgtctatgca tttcttcacc tatttatcag gactctttct 1200  
gttagatttg aatgggtca gggcagtgag tcttgggcct gctactccac aaatcaagca 1260  
ttctttctag gtctggctct tgtgctacgt gtacaggcag gcagcccctc ccctgcccc 1320  
tcattctgag ggctctctgg gagcaggcag aagcattttc tgctagctgt gccctcacag 1380  
tccttaagag tacaaaactt aatggtacag gagaggagac atcaccccc accggctggc 1440  
tagatgctgc tgctggaagc tgtgagtctc ttaccacctc ctcactgatc tttgttgggg 1500  
gaaggggcac tgttggtgaa tcagcatatt tttgcagcct agagaaagac aaagccaaga 1560  
gcctttctgc tcagagtctg gcagttatgg ggtctagaac tctactctga ctgttctct 1620  
gaaaggaacg tacaaacacc acaaatgtt ccttttaaac atttatacac gtaagtccaa 1680  
caagttggac tggcttatca gaaacagacc aagggaataa aataaattcc aaaggaaagg 1740  
aaacagacaa tacatcaaaa ctaagacatt ctgcaaatca attggcctag attcctcact 1800  
aatatcagta tcacaaagga caacaaaagt tgtaggaact gttctagttt aaaggaaaca 1860  
gaagagatat gacagctgaa tgtaatgtgc aatggatgat taaaaataca gctataaagg 1920

atattactgg gataattggg aagttttgca tacggagtat attagatagt atttttgtaa 1980  
taattttaa tttgctgaga gcaatcttgt agtgtggttg tgtagagcaa tatatatcac 2040  
actgaattta tgtgctgtgg aagtatttag ggatgaaatc taatgatgag tacaactaaa 2100  
tctcaaatgg ttcagaaata tgtgtgtgtg ctcgtatgta ttttacataa aacaaatatg 2160  
tcacaatgtt aactggtgaa tctaaatgaa gggatatatgg ttgttcatta tactattcta 2220  
gc 2222

<210> 1309

<211> 3075

<212> DNA

<213> Homo sapiens

<400> 1309

aagaaggtgc cgcggcggcg ccggagatgt gtaattaagt gaaccatata tgtttcatca 60  
tcatggagac cttggagaat tatctgagca ccaggttcat atgtattcga tctcagaggc 120  
atctattgga caacaaaaca ctctttcagt tgtgaacttt atttatttat tattattatt 180  
ttttgagaca gagttttgct cttgttgccc aggttagagt gcagtggcac gatctcggct 240  
cactgcagtc tccgcctccc aggttcaagc gattctcttg cctctgcctc ccgagtagct 300  
gggattacag gcatctgcta ccacgcctgg ccaatTTTTT gtattttcag ttgaaacgag 360  
gtttcaccat attggccagg ctggtctcga acttctgacc tcaggatgac cccccccgc 420  
ctcgtcctcc aaaagagctg ggattacaag tgtgagccac cgcgcccggc ccagttgtgg 480  
actttaacag agggaagctt taaacatgtt taaccacagg cccaatttga acaaagatac 540  
ttcaatcatt atagagagga aaacagtact ttttgttcaa ttgtgcaaac tctccaagta 600  
tctaattggag aagtagagaa gaaccctaata gaaactgagt gtgaatgagg ctgagctagg 660  
cttctacttg ggttcacttt ctcatctgtc tgcctgtcct gggattgacc ctcgctcctc 720  
tgaagaccag cctgaaagcc ttaaaactgg tcagatgatg gatgagtctg atgaggactt 780  
taaagaactc tgcgctagct ttttccaaag ggtgaaaaaa catggaatca aggaagtgtc 840  
aggagaaagg aagacacaaa aggctgcctc aaacggcact cagataagaa gcaaattgaa 900

aaggacaaa caaactgcta ccaagaccaa aacccttcaa ggccctgcag agaagaaacc 960  
tccgtctggc agccaggccc ctaggactaa aaagcaaagg gtaaccaa at ggcaagcaag 1020  
tgaaccggcc cactctgtga atggggaggg ggggtgtgctt gcctctgctc cagatccacc 1080  
tgtgctccgg gaaacagcac aaaacaccca gacgggtaac cagcaagaac catcgccaaa 1140  
cctttccaga gagaaaacca gagagaatgt gcccaacagc gactcccagc ctctctcttc 1200  
ctgtttgaca acagcagtgc caagtccttc caaaccgcc acagcacaat tggctctaca 1260  
gcgaatgcag cagttcaaga gagcagaccc cgagcgtttg agacacgctt cagaagagtgc 1320  
ctccctcgag gctgcgcggg aagaaaatgt cccaaaggat cctcaagagg agatgatggc 1380  
ggggaatgtg tatgggcttg ggccccctgc ccagagagc gacgctgcgg tggccttgac 1440  
cctgcagcag gagtttgac gggtaggagc atcggcacat gatgatagcc tggaggaaaa 1500  
gggtttgttc ttctgccaga ttgtcaaaa gaacctctca gccatgaacg tgaccgaag 1560  
ggaacagcat gtgaacaggt gggggcagct tgggccgtcg cctctcccgt gtatgtgacc 1620  
agaatcccca agcaccagc ggctggagtgc cgatctcca cacctacca tgacaacagc 1680  
acctcagctt tgttgtcaac ctacccttt ttaaaaataa cttcgttgag atacaattca 1740  
cagaacatat agttcacca tttaaactga acaaatcact acttttggga tattcacaca 1800  
gttgggcaac tgtcaccaca atcacttctg gattattctc atcacccca aaagaatccc 1860  
cacaccatt ggcagccact ccctattgcc cctctctccc ctgacaacca ctaatcaaca 1920  
ttctgtctgg atggatttgc cgattctgaa attgcacagt tgccttttg tgtctgcctt 1980  
ctttgactta atatgttgtt tttaggttc atccatgttg tagcatggag caggcttcat 2040  
tcctttttat ggctgagcag tatctcattg tatggctaga ctgtgtttt ccattctta 2100  
gatgaggaat atgaccatgg ttatccctt cgtccattgg cggacatttg gagcatttct 2160  
accctttggg attgtggata gagctgccgt gaacatgggt ttcattgtatt tgtttgggta 2220  
cctgctttca gttctttggg gtctctactt aggagtggaa tttctaagtc atcatgtaac 2280  
tgcatthaat ctttcttgc tttctttagc caactttgct gacagatacc taagtgtagt 2340  
gtctaggggc tgactgccgg gagacggagc caggctgtgt agaggggatt ggctttgggg 2400  
aacttgcttt gaccacagca cgtctgtgtt gacctggacc cacatttgct ccaatccaca 2460  
ttcctgggga ggggtggttct cctgtattga ctgttttct tcagggtgctt ggatgaagct 2520  
gaaaagacac taagaccttc tgtgcctcag atccctgagt gcccgatttg tgggaaaccg 2580  
tttcttacct taaagagcag aaccagtcac ttgaagcagt gtgctgtgaa gatggaggtt 2640

ggccccccagc tcctgcttca ggctgtgcgg ctgcagacag cacagcctga gggtagcagc 2700  
agccccacca tggtcaggta agtcgacgaa aaggaagaaa accaagccaa ataatgctgt 2760  
gtgcactcag ggctttttct atttaaaaaa gctttttatg ggctggacgc agtagttcac 2820  
acctgtaatc gcagcacttt gggaggccaa ggtgggcaga tcaccttaga tcaggagttc 2880  
gataccagcc tggccgacat ggtacaatct cgtctctact aaaaatacaa aaattagcat 2940  
ggtggcacat gcctgtagtc ccagctactt gggaggctga ggcaggagaa tcacttgaac 3000  
ccagaaggta gaggttgtag tgagccaaga tcgtaccact gcactccagc ctggacagag 3060  
tgagatcctg tctcc 3075

<210> 1310

<211> 2469

<212> DNA

<213> Homo sapiens

<400> 1310

ttgaaatgct cgatgatctt ctcttccgc acgttctcgg gccgggctg gcggctcaca 60  
cctgtaatct cagcactttg gaaggccctg gcggaaggat ctcttgacgt caggacttcc 120  
aaaacagttg ggcaacacag caagaccccg ttcccaggct gggggcaaag ccgggctcgg 180  
tggctcacgc ctgtaattcc agcactttgg gaggccgagg tgggcggatc acctgagctc 240  
aggagttcga gaccagcctg accaacaatg tgaaacccat ctctactaaa catacaaaaa 300  
ttacccgagc gtattggcgg gcgcctgtag tcccagctac atgggaggct gaggcaggag 360  
aatcgcttga acccgggagg cgaaggttgc agtgagccga gactgcgcca ctgcactaca 420  
gcctggatga caagagactc ccgtctcaaa aaaaaaaaaa aaaaagacac ctttctttgg 480  
gcctagttag caaacattct acgcagtgcc taatataagc cggcccaggc accaccaag 540  
ccttcggcca ggactgtttt cccgtttcga gaaggctcca tcacactcca cacgggatcc 600  
agtcaacagc cgttccaaac atggcgcgagg aaggggtgga agacaagcca gcgcgacgcc 660  
gtccagcctc atccccgggg cacaaagggg agactaatct ccaggaaact cggggtacag 720  
aatcgataac cccacaagaa actagtttcc gcgagtgggc ctttaaggaaa aagcaggtcg 780

ggcacaagcg agctgttcag acgcacttca cagcaaagac tcgcggacaa cacagcgaga 840  
cgaaaacggc cccgtgcgca ggcgcgcgga aacacgacta gcgcgcttcg ggacgacccc 900  
tcccccttcc ctcaaaggcc aaggaagtgg ctccgacgcg cttgcgagag gacggaatgt 960  
tgaggggagg gggaattctt tcccttcatt gtcagagaga accgcccccg cacggcgagc 1020  
gcgcgcgcgc tcacgcacca ctctcacact ccggcgcgcc aaaggctttc cgcttggcgt 1080  
ctcgcgcatg cgcgaggagg gaagcagtgg cgaaattgga tgctttttgc tgagtttctc 1140  
agagaagttt ctggaaagat ggagccaaag ggacgctggg ggggtggggag cgccaggaag 1200  
caagcgtttg aaagaaagcg aaaaaacca agcgcaccgc gacacctcca accttcgagc 1260  
cacggcccaa gcagagccca aggccactga gaccctcacg ccagagaaaa agcacaggga 1320  
ccgcggcagc cgctcctccc tctgccactg ctacgcccc gagactcccc agcacgggga 1380  
gagggcaggg ggtagccatg agaaacctag agcgctcact ggacttttgc gaggtggaag 1440  
gaaagccgaa acccgccctt tggagccgcc tgtgcgcacg ggccccgtcg agtgggctca 1500  
gtacgttagg actcagcgtg gccgcaaag cattggttgg gggcgctttt cactaathtt 1560  
tcctaggttt tctctcctat cgggctctgt ggtcctttca ccacccatct tcaatttgg 1620  
ggcctgacgc taacgctgcg agttggggaa accgtagtaa ccccgggcct gaggggagtc 1680  
ccgggcggcg gtgctccgtt tcttcacgag gttgccccct taagaaaaag ccccccggag 1740  
aggggcccgt gtggctgagt aaaggtggcg tgcgcccga caaaggcgcc gcgttggttg 1800  
cgggctccgg accctgttgc ccctgggcgg ggcgcgctgg gaagaccggg gcgcctgggc 1860  
ggggagaacg acgttggcgc tagcggggca gggcaggggg agggagtcac ggcatttagc 1920  
aggtgcttct ccgcgaccga gcgactgcca ttttgtggtg cggccgccc catttcgcgc 1980  
ggccgagggg cggggtgtgg gcggagcggc gggcgcgccc gggctgtccc tcggggcggc 2040  
gggctaacgc ggccgctttg ttcttcgctt ctcggctcga ggccccagtc tcgaccgccg 2100  
accgcctcgg aaccgggctg catccgagct gccacgcggc gtgtgaacct tgaagcgcg 2160  
ccggggaatc cgcaaggcgc cgactctctt cctccttgca agcccttcga aagtgaatt 2220  
tctcacccca cccttcgagg gtggagagaa cacgtttcaa aaaggggatg cctagaactc 2280  
agccgtggga agtgccctgc taaagccttg tgctggtgcc agtagcaaac ccgtgcgcgt 2340  
gctcggcttt gaggatcat ggagctctgc aaatagctca actgcagagc gtgcccccta 2400  
gagctcctgt gctgctggga ggcctcataa aggtgccaaa accaggtgtc cccagcggtt 2460  
ggcctcttt 2469

&lt;210&gt; 1311

&lt;211&gt; 2545

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 1311

aaagcagaac aatggctggg ggtgagcagg tggccttggc cagtgctctg cccaagggc	60
cctttaccag agatcagggg tttgtgtccc tgcctaacca ggacacctcc gatctccacc	120
tgcaggccct ggaccactgt ggcactgtgg acacaaggcc gcttctgccc cttggacgcc	180
gagccccttc ccacctctgg gatcttgcac tggctattgc ttctgctctg cctggaactt	240
cttccccgga tccctgtgaa atgtcacctc ttcagagagg ccttcaccac tgtctttcct	300
gcccagttct tggttgatag gttcctgtca gctccttctg ggcaggagct tcttgtgctg	360
tgtgctctgc ctagagacag tgcttgccac gaagtaggtg agcagaccct ccatgagtgg	420
caggaaaggt ggggtgcacc tcatgcccct ccggagtctg gcctgggcta ctcagaggcc	480
agcctccatc tgaggtgggt ttgtctgggg tggcgtcagc ccctgcggcc ctctctgggc	540
ctctctgcat tggcattgtt ccactgcagc ctggggcctc gaccaacata gtggggctcag	600
ggtagaaacc agattgtgaa aggtgaagcc tgagactcct ctgccacgtc cctgagatgc	660
tgtgaggctg ccgcaaaga aacatgagct tgctggggcc accctagggt gacagctagg	720
agagaagaaa aacaggcagc caggtgagaa gggagagcct tgggctggct gcagctccaa	780
gctggctaga gggcaacagg cagcctcctg tgcaggacag acgcatgaag acagccaccc	840
tgtggagggt attcctggat actaggtggg aaagtcggca agcaaaagga caggtccagc	900
tcaagcttct aaaagcaatg ctgggggacg gtgcagcaag gtgttcctgg aaatgacctc	960
ggcaacacat cttagaagat gagcaggacc caacctgaca gatacacgct gcgggcagaa	1020
gaggccaagc tgccagaggc tctgtgattg gctgcggcac gatgaccgc gcacggattg	1080
gctgcttcgg gccggggggc cgggcccggg ggacagaatc cgccccgaa ctttcaaaga	1140
gggtaccccc cggcaggagc tggcagaccc aggaggtgcg acagaccgc ggggcaaacg	1200
gactggggcc aagagccggg agcgcgggcg caaaggcacc agggcccgcc cagggcgccc	1260

cgcagcacgg ccttgggggt tctgcgggcc ttcgggtgcg cgtctgcct ctagccatgg 1320  
gggtccgcagc gttggagatc ctgggcctgg tgctgtgcct ggtgggctgg gggggtctga 1380  
tcctggcgtg cgggctgccc atgtggcagg tgaccgcctt cctggaccac aacatcgtga 1440  
cggcgcagac cacctggaag gggctgtgga tgtcgtgctg ggtgcagagc accgggcaca 1500  
tgcagtga aa agtgtacgac tcggtgctgg ctctgagcac cgaggtgcag gcggcgcggg 1560  
cgctcaccgt gagcgccgtg ctgctggcgt tcgttgcgct cttcgtgacc ctggcgggcg 1620  
cgcagtgcac cacctgcgtg gccccgggcc cggccaaggc gcgtgtggcc ctcacgggag 1680  
gcgtgctcta cctgttttgc gggctgctgg cgctcgtgcc actctgctgg ttcgccaaca 1740  
ttgtcgtccg cgagttttac gaccgctctg tgcccgctgc gcagaagtac gagctgggcg 1800  
cagcgtgta catcggctgg gcggccaccg cgctgctcat ggtaggcggc tgcctcttgt 1860  
gctgcggcgc ctgggtctgc accggccgtc ccgacctcag cttccccgtg aagtactcag 1920  
cgccgcggcg gccacggcc accggcgact acgacaagaa gaactacgtc tgagggcgct 1980  
gggcacggcc gggccccctc tgccagccac gcctgcgagg cgttgataa gcctggggat 2040  
ccccgcatgg accgcggctt ccgccgggta gcgcggcgcg caggctcctc ggaacgtccg 2100  
gctctgcgcc ccgacgcggc tcctggatcc gctcctgcct gcgcccgcag ctgaccttct 2160  
cctgccacta gcccggccct gcccttaaca gacggaatga agtttccttt tctgtgcgcg 2220  
gcgctgtttc cataggcaga gcgggtgtca gactgaggat ttcgcttccc ctccaagacg 2280  
ctgggggtct tggtgctgc cttacttccc agaggctcct gctgacttcg gaggggcgga 2340  
tgcagagccc agggcccca ccggaagatg tgtacacctg gtctttactc catcggcagg 2400  
gcccagagccc agggaccagt gacttggcct ggacctcccg gtctcactcc agcatctccc 2460  
caggcaaggc ttgtgggcac cggagcttga gagaggcgcg gagtgggaag gctaagaatc 2520  
tgcttagtaa atggtttgaa ctctc 2545

<210> 1312

<211> 2558

<212> DNA

<213> Homo sapiens

&lt;400&gt; 1312

aggccttcca	gtagatagccc	tcaagagccc	actcactcta	aaccactagc	cccaatggag	60
ctggagccaa	tgtacagcaa	tgtaaactct	ggagatagca	acccgattta	ttcccagatc	120
tggagcatcc	agcatacaaa	agaaaactca	gctaattgtc	caatgatgca	tcaagagcat	180
gaggaactta	cagtcctcta	ttcagaactg	gagaagacac	acccagacga	ctctgcaggg	240
gaggctagca	gcagaggcag	ggcccatgaa	gaagatgatg	aagaaaacta	tgagaatgta	300
ccacgtgtat	tactggcctc	agaccactag	ccccttacct	agagtggccc	acaggaaaca	360
gcctgcacca	tttttttttc	tgttctctcc	aaccacacat	catccatctc	tccagactct	420
gcctcctacg	aggctgggct	gcagggtatg	tgaggctgcg	caaaagggtc	gcaaactctc	480
cctgtgcctg	atctgtgtgt	tccccaggaa	gagagcaggc	agcctctgag	caagcactgt	540
gttatittca	cagtggagac	acgtggcaag	gcaggagggc	cctcagctcc	tagggctgtc	600
gaatagagga	ggagagagaa	atggtctagc	cagggttaca	agggcacaat	catgaccatt	660
tgatccaagt	gtgatcgaaa	gctgttaatg	tgctctctgt	ataaacaatt	tgctccaaat	720
attttgtttc	ccttttttgt	gtggctggta	gtggcattgc	tgatgttttg	gtgtatatgc	780
tgtatccttg	ctaccatatt	gggaacagcc	aaaagaagtt	atagaacaag	aatttaaggt	840
gactctatct	gaagtgtatt	tttgtactta	cagggtgaca	ttcccaacca	aattacccta	900
gttatgatga	aaaataactt	cagcatttca	ttaaagactc	tgctagttta	atatgtgact	960
tgtatcccca	ctgcaaagac	cttatgtgtg	aagaatcaca	ttaattgtaa	tttttgcttc	1020
atgacatagt	ctcatcattt	tccatacatg	atagatttct	agtcagtcag	ttttattctt	1080
ataagcacc	attaaccccg	agacaataac	ctactatata	tatgtggctt	ctcccattct	1140
cttcctctac	ctcactccat	ctgataaaaa	accattctaa	atctcatgtt	cattattccc	1200
atgctctcct	atttctatca	tattaatgta	tctacatgtt	ttccttaa	atgtttttat	1260
attagtttta	actataagtt	aaagaccata	ttgttgtaga	taaatttttt	tagtactttc	1320
tcttcatgtt	gtatttctaa	gattcatcca	tattgttgcg	tggttgctata	gttcatttgt	1380
ttttattgct	gttttagtatt	tacttgtgta	aaatatctgg	cttaatgttt	tcctagctat	1440
caccatcaaa	aactctttcc	acagtgtgtt	gaatttttaa	tatgacaaaa	atgaaaatgt	1500
accaacaatt	ttcagtgact	tcacctccat	tctgaaatcc	tgatgtttcc	aaatatctct	1560
gaacacctca	agtcctaggg	acaactgaga	ttatattaac	attaatctct	gaatgttgcc	1620
aattctaggg	cttcacttgg	ttcatgtagg	aacaccaagt	ccctttcaaa	gcaccacatc	1680

ttctctaat caatatttct tggagtcctt aggggaatgtc ttacatgcat tcaaacaatc 1740  
 accatttctg gagatacact acagggtcac cataaactct gctaccctta gggtccatca 1800  
 ctatggaagc tgagttttcac cagaaggcac ttttgtcctc cattacgacc agcaaagcca 1860  
 gctaagccac agctgctggc ctcaaaaaat gtgatgatca atccacactg ctcccactgg 1920  
 cctctgttac ccttatcctg gcctttgagt gcagggcatg atgtcctgcc cgtactgaga 1980  
 tgctgatctc tgccagttca tgttcatatt ggcatataaa ttttaaggct ccttgaagag 2040  
 ggaggaggca aatgtctctg tcttctatgt gatacattct gctgtttttt tctctatggt 2100  
 gaaaatatgt aaaccggttt tgggtacca ccaccaggct gtatatggag gctctcctcc 2160  
 tttctaacc tctgtctgat ttggaattac cttgccaagc ccctttgtgc cttatagtga 2220  
 actttctcta agggacctgt catctcttat cattgtttat ccattttcta gattctgaac 2280  
 ccaagaaaga acaaagttca agattttcca tgtctttgta acacttagcc ctgtgcaaat 2340  
 cagagtatgt gagtggaaga aggggtgagt cctaactgta catctcggtat ataacaaatg 2400  
 tgcaaattct gattgattgc cctgtaaaat gaattattct catgcagtgc tctacttgac 2460  
 ttttatcttt gaattcaca ctaaaaacc atagcccaga aatctaaaaa aagtaatttt 2520  
 agtggagcct ttgaaaataa aagaccattg gaaaaagt 2558

<210> 1313

<211> 2052

<212> DNA

<213> Homo sapiens

<400> 1313

aagcgaagac ttggcctgcc acaccctaag taccaccacc caccaccaga ggcgaccgcc 60  
 agcccccgct gccatcagcc atctccaggg ctgaggaaact gagcccatgt acctgtcaca 120  
 aaacaaacaa gcaaaaaaca gataaatccc tcagagacag gctagccttg acatggaccc 180  
 cgattctcac ctggactcca aaagctatct tgacctactg gcatctctga cccaaatctt 240  
 aattgcccc atcgccctct acatcccccc agcactgacc ctcaccagga ctccagcccc 300  
 aattccatcc caaatctgtg tagcatctgc ttctgccgat tctaagagcc ctagcacctg 360

ccaagtcccc ccattacca cctgcccaca ctcagaagcc tctttggtgg gatgctaattg 420  
ggaaggagtc ttgcctctct ggaggcagga ggggctggcc ttgtgccct cccggcctct 480  
gagaggtggg cgcaggagaa cagcactcac gaggggacct ccttcacct gggaaaggg 540  
ggtttctttg ctatttcaca gtcacaggct gaatccttca cttggccctg cccaccgtac 600  
aggtatgctc actgccggct ttagggaggc cagaaaccaa cctgctcctg caaaaagaat 660  
ccaggcttgt tctgagtgcc tgctgtaggc caggcaagtt ggtcactgtt gcatgagggg 720  
cagtgcctct cactcttggg cctgatgcca agggagggtg cctgtcccgg tcgcatgcag 780  
acatcctggc catcccagcc acacatgcac gtgagaggct gggtgccggc agggttcctg 840  
agggactgga agatgtggcc cctgcctgc ctccttcctc ttgtgaatat aaggggccag 900  
ttcccagccc aaagccccac cgggggccct catgtttcat caccaacagg cctactgtct 960  
ggctcctttt gacctcatca aagtccggct acaaaaccag acagagccaa gggcccagcc 1020  
agggageccc ccaccccggt accaggggcc cgtgcactgt gcagcctcca tcttccggga 1080  
ggagggggccc cgggggctgt tccgaggagc ctgggccctg acgctgaggg acacccccac 1140  
ggtggggatc tacttcatca cctatgaagg gctctgtgc cagtacacac cagaaggcca 1200  
gaatcccagc tcagccacgg tgctgtggca gggggctttg caggcattgc ttctgggtg 1260  
gcagccacgc ccttagacgt gatcaagtcc cggatgcaga tggatggact gagacgcaga 1320  
gtgtaccagg ggatgctgga ctgcatgtag agacgggggt tcaccatgtc ggccaggatg 1380  
gtcttgatct cctgactttg tgatccgcc gcgtcgccct ctcagggtgc tgggattaca 1440  
ggcgtgagcc accgcgccc gctgccttca cctcttaagg agctctgaga ctccacttct 1500  
gagagtccct gcggcctccc acctccctgc ctttcaaagc tctctcccc atgaccagg 1560  
ataaccctat gtctctccc ccagaatcct tcagtggctc tcatcacctt caggaaaagc 1620  
ccaaactcct tccacctcc aggttccctc ctccccacga ggctttgttc tctgggggtt 1680  
gcttctgga ccctgaacaa gttgtgctct cattggccgg gcctggccag cagtgcacag 1740  
tgctggcag gttgactcta ccatccccgg ggctggcccc gctctcctcc gagaccagg 1800  
ctgagcccag tcccctcacc ctcccttgac ttacctccc acctgaggct gactttgggg 1860  
ttcccagaca ccctaccac acacatgcct tgatcatagc acttgccctgc gcttcttcag 1920  
agtcattaat ttgcttctcg gcttccccac tggactgtga gctgcctgag gtcagggatt 1980  
gcgctttgga tggtttccag cctgagccctg gtgcttgaac agacgtgtgc aataaatgct 2040  
cgtaaata ga tg 2052

&lt;210&gt; 1314

&lt;211&gt; 2174

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 1314

agctaaggcg	cgctggatcc	ccggagggcg	gaggacctcc	acggtgcacc	cagcttttcc	60
cagccacctt	ccagcggggc	cctccccgc	gtacccccat	ttggcagatg	agaaaattga	120
ggctcccaga	ggccaagtga	ttctcaaggt	cacacgagga	agcggtagag	ccaggcgggg	180
acggctctgg	gtggctctta	ggaaaagtcc	gcctgagaac	tccgtacagg	agctcccctg	240
tcctccagcc	tgggggagtg	agtatgtgta	gggccggggg	acctttccgt	ggggcaaggc	300
tctgcaaaaa	tctgggagtg	aggggagtca	gggagctggg	gccgcagggc	gggccctgca	360
ccgcaaattg	gagggggggc	acggaatggg	cgtgcgcacc	catgggggtg	tgtgcatgtg	420
tgtgggagtg	tacatgcgtg	gagaggcact	gccttgcgtg	tgtgcacacg	tgtgaggatg	480
tcagcgccctg	tgtggccgcg	ggactcaagg	ctggcctggc	tcaagtgaac	agcacgtcca	540
ggaggcgacc	tgcgccgcgg	gtttgcattc	tgggggtggac	gagctgggta	tgtgtgcctg	600
agggtttctt	cgtgcaggtg	tgcacagggt	gtgggtgcc	ttgtgtgtga	gagacggagg	660
atgggaggcc	ggtgcctgtg	gcccgggtgcg	tgtaagtgcg	gacgcctgca	cctccactta	720
ggtccccggc	ctccgacgac	taacttgggt	gtggagtgtt	tgcccctgcc	agggtgcgta	780
tgaccccgcc	agtgaccgga	gttgctaata	gtgtcatgca	cccaccggcc	acccttggcg	840
cgagcgcccc	cctctggaca	ccctgctccg	tgcgcgctca	cagttcgcct	gtgcggggcc	900
ggggccaggg	tcaggagccg	gggataggga	ggaagagggc	ctgtggacaa	gctgagccgg	960
gacccctggg	acctttgcgg	aggtggcctg	ggagcgctca	gttcccaggc	tgaggcttcc	1020
cgctgacgcc	tcctggccgc	agcgggctcc	ccccgcccc	ggaatgttcc	tctcccatcc	1080
agtcgcctc	ccctagggca	ggccccctgg	gggctgccgc	agccccgcct	cgccttctctg	1140
ggctcccggg	agggggcgag	gcgagcagga	cgcctggggt	ctctcccccc	acctcccata	1200
ccagggagaa	attcctccga	ggtccctca	ggctctgggt	tccaaaata	accctgcggg	1260

ggaagggagg ctgtggaggg aggggaagcgg gaggggcgca gagccgagct gcgggggtgct 1320  
 gcaggtgcct ctggggagag ggcgcgagga gaaggcgccc tgcggggggc tgggcgccag 1380  
 ccagtcctgg gatcttggtt cgtccccatc ctcgtgaagc ccctcggcct tccgcgact 1440  
 ccgagggtgg gccggaagcc tctctgcggg tccgtttccc aactggcggg ttgcaccatc 1500  
 ccggggccaga ccgtttaacc ccgggagtgg ccgcggggga caactccgcc cctgtccagc 1560  
 agggggcgctg cccgccccgc cccgtttctg cccgcggggc cgctcccccg cccgcgactc 1620  
 cgcgactcc cgctctgcct ctcccgggac aggggttcgg tccgagcccg gtgggaggct 1680  
 cccggagcgc agcctgggcc cagcccaccc cgcgccggcg gccatggcag gcaccctgga 1740  
 cctggacaag ggctgcacgg tggaggagct gctccgcggg tgcacgaag ctttcgatga 1800  
 ctccgggaag gtgcgggacc cgcagctggt gcgcatgttc ctcagatgc acccctggta 1860  
 catccccctc tctcagctgg cggccaagct gctccacatc taccaacaat cccggaagga 1920  
 caactccaat tccctgcagg tgaaaacgtg ccacctggtc aggtactgga tctccgcctt 1980  
 cccagcggag tttgacttga acccggagtt ggctgagcag atcaaggagc tgaaggctct 2040  
 gctagaccaa gaagggaacc gacggcacag cagcctaac gacatagaca gcgtgtgcgt 2100  
 ggggggagca cagagggtg ggggggcact cagtatccta taccatctgt gcttaataaa 2160  
 tgtctgttga actg 2174

<210> 1315

<211> 2395

<212> DNA

<213> Homo sapiens

<400> 1315

gacgtcaaac gccgtgtgct caccacagtg tggtgccctt ctcccgggtg aggcgctgga 60  
 gctgaggacg cttttcctgc gggcgtagtt gctggctgct cgggcactgg gacctcggcg 120  
 gcttggggac gctggccgcg aagtagggag cgcaggtggc cgctcggggg gagggccctg 180  
 ggtcatggag cacttcttgc tggaggtggc agccgcgccg ctgcggttaa tcgcagccaa 240  
 gaacgagaag agccgcagtg agttgggcag gttcttggcc aagcaggtgt ggacacctca 300

agatcgccag tgtgtcctga gtaccttagc acagttgctt ttggataagg actgtactgt 360  
gctgggttggc cgccagcttc gccctctcct tttggatttg ctggaaagga atgccgaagc 420  
cattaaagct ggaggccaaa tcaaccatga tctgcatgaa cggctatgtg tgctgatgag 480  
caaactcatt ggtaaccatc ctgatgtcct cccgtttgcc ctgagatatt tcaaggacac 540  
atccccagtc tttcaaagac ttttcctaga gagttcagat gctaataccag tacgctatgg 600  
acgtaggagg atgaagctcc gggacctaata ggaagcagcc ttcaagtttc tgcagcagga 660  
gcagtcctgtg ttccggggagc tctgggactg gagtgtgtgt gtccctctcc tcagaagcca 720  
tgacaccttg gttcgctggg atacagccaa ttgtcttgct ttggttacct gtatgaatga 780  
agagcacaag ttatcatttc ttaagaagat atttaatatg gatgaattga tccatttcag 840  
gttgagggtta ttagaagagg ccagttgca ggacttggag aaggccttgg ttttggccaa 900  
tccagaagtc tccctttggc gtaagcagaa ggagctgcag tacttacagg gacatcttgt 960  
ttcgtctgac ctctccccta ggggtgacagc tgtttgtggg gtgggtgctgc ctgggcagct 1020  
gccagccccct ggagagctgg gtggtaatag gagttcttca cgtgaacagg agctggccct 1080  
taggtcttat gtgctgggtg agtctgtctg caaaagtctt cagaccctgg ctatggcggt 1140  
tgcttctcag aatgctgtgt tgttgggaagg accaatagga tgtggcaaaa ctctcttagt 1200  
tgaatattta gctgcagtga caggtagaac aaagccctcct cagcttctca aagtccagct 1260  
tggagatcag actgacagta agatgctttt ggggatgtat cgctgcacag atgttctctg 1320  
agagtttgtg tggcagcctg gcaccctgac acaggcagcc acaatgggcc actggatcct 1380  
tctggaggat attgactatg ccccttaga cgtggtttct gtgctgatcc ctctcttgga 1440  
gaatggagag ctcttgattc ctggccgagg tgactgtctg aaagtggcac ctggatttca 1500  
gttttttgca accaggagac tcttgagctg tggaggaaat tggatcgac cgctaaacag 1560  
tcatgctact ttgctagaca aatattggac caaaattcac ctggataacc tggataagag 1620  
agaactgaat gaggttcttc agagcagata tcctagccta ttggcagtgg ttgatcacct 1680  
gcttgacatt tatatccaac ttactggaga gaaacatcac tcttggagtg atagtctgt 1740  
tggatgtgaa caggcacctg aagaagtttc agaagccaga agagaaaaca aaagaccaac 1800  
ccttgaggga agagaattat ctctaaggta ctggactaaa cagttttttc ttttctttct 1860  
ttcttttttt tttgtgagac agattcctgc tctgttacct aggctggagt gcagtgggtgc 1920  
agttttggct cactccaacc tccgcctcct aggttcaaag ttcttaccag ctagaagtaa 1980  
atagtcaggt tttgaaatta taggttgctt catgggtgtca gatccctttt tcagatttat 2040

aattaatgac tgggaaggct cgattagggc aatgttttta actttaaaaa ataactttta 2100  
aagaccaact tgggagtggc tcctaacata attctttcac tgaatgccct tttctgacac 2160  
ttggagtctt aaataagtct tcttgattt cgctatctat gacttctgtg ccactctgtg 2220  
ttctcagtgg ttgacttccc ctttgagaag tgagaattag aaatgggcat ctcctcaggc 2280  
taggcgcggt ggctcacgcc tgtaatccca gcactttggg aggccgaggt gggcggacca 2340  
tgagatcagg agttcgagac catcctggcc aacatggtga aaccccatct ctact 2395

<210> 1316

<211> 2526

<212> DNA

<213> Homo sapiens

<400> 1316

gcgcccgcgg gaaaccggg cccgttgcac ccgctgggtg tagccgtggg gatggcaggt 60  
tcggggaggc tggctctacg gccctggatt cgggagctga ttctggggtc agagacaccc 120  
tccagtccac gagccgggca gctgcttgag gtgagcccc attcagggcc cggagaccga 180  
ggcggaggcc cgggggtggc ggattgacgc cgctcgccgc cgtcaggtac tacaggacgc 240  
cgaggccgcg gtcgcgggcc catccacgc ccctgatacg tccgacgtcg gggccacgct 300  
gcttgtgtct gacgggaccc acagtgtccg atgcctggtg acgcgggagg ccctggacac 360  
ctcggactgg tgagaggccc cgcgcggctc tggagggagg agaaggagt cggcttccgc 420  
gggacagagg gccggctgct gctgctgcag gactgcgggg ttcattgtcca ggtcgctgag 480  
ggcggcgcgg tgagtgggtg gactgccttg ggccgggttac cgggcatgac tcttcgtgac 540  
gattctgaga ccccccttc cccccgaact cctccagccc gcagagttct atctccaggt 600  
ggaccgcttc agcctgctgc ccacggagca gccccggcta cgggtgcctg gttggtaagt 660  
gatgcctccg ccctccagca gctctccca cccagcctg gccggcgctg gcagacgcct 720  
atggggtagg agggcttggg cccccattaa ctacccttct ctttttctta gcaaccaaga 780  
cttagatgtt cagaaaaagc tctatgactg ccttgagtga gtctgggggtt gggctcgggg 840  
gccacgtgtt gtttggtgag gggatggtgt atctaggtag acaggcctca gcatggttcc 900

tgagtcctgg ccactctctt cctgtaggga gcacctttca gagtccacct cgtccaatgc 960  
aggtactgta gagcttgacc agtgatccta acacgctgtg cagtgatctc tccagcctta 1020  
accttatgct tctcaataa gctgtcttcc cctcaccct cctggctctc ccctttaagc 1080  
cttgactcat cccatgggtcc cctgtcccca ggccatcac tgtcccagct tctggatgaa 1140  
atgcgggagg accaggagca tcagggggca ctcgtgtgcc tggctgaaag ctgcctgaca 1200  
ctggagggcc cttgcacagc acccctgtc acccactggg ctgcctcacg atgcaaggcc 1260  
acggtcagtc tggggatttg cttgggagat gtcaggggtga ggagttgggc aagggtcata 1320  
tcccacagga catgagagta aacgggcctg tcctacagag ttcattgtccc acaggagaaa 1380  
gctgtgtaca ctgtccccag ctcaatgctg tgcattctctg agaatgacca gctaattctg 1440  
agctctctag gccctgtca gaggacacag ggtaaggggg actggagagg ttggggggat 1500  
acctggggcc caggtccaca gtgctgataa gacttcctga acccccagg ccctgagctg 1560  
ccccaccag acccggtctt gcaggacctt tctctgacct tcatagctc tctccttcc 1620  
tcaccagtt cctcaggtga ggtgatgcac aggtcacagg cactcactgc cgcctgtcag 1680  
tcaggttccc gggctgcgca ggatgctgtg aaagggtcac ggtgggtggg ggatgaacac 1740  
ggtccttga gtcctgtctg agctcgcagg ccactcagct gccctgagcg gagagggtg 1800  
tgctacaat aagtcctctc ctctcagga accccggcct taccggcca catgtcatcc 1860  
gaggaaagt gtaccagcat cagccttctg cctgccctgt ccttggtgc tccagaccca 1920  
gggcagagaa gcagctcca gccctacca gccatctgct cagccctgc caccctgacc 1980  
cccaggctcc cacacgccag ccgtacccc agctccccac tccagagctg cactcccagt 2040  
ctctacccc gtagccatgt cccagttca caccaggctc ttgtgaccag gcccagaaa 2100  
cctagcctgg agttcaagga gttttaggg ttgccctgca agaatcggcc gccttttccc 2160  
aggaccggag ctaccagggg agcccaggag cctgctctg tctgggaacc cccaaagagg 2220  
catcgtgatg gttctgcctt ccagtatgag tatgagccac cctgcacgtc cctctgtgct 2280  
cgggtccaag ctgtcaggtg agtgcctggg tctgccccaa ctcttggtca ctagtcccag 2340  
gtccattga cctgcagcgg tggtttctt ccaggcttcc tcccagctc atggcctggg 2400  
ccttgactt tctgatggat gcacagccag ggtctgagcc aactccgatg tgagacgtca 2460  
cgcaggacag ataccgtcc acactctgct tcctttgagt tttttaataa aataatctca 2520  
tgcggc 2526

&lt;210&gt; 1317

&lt;211&gt; 3111

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 1317

aggaagccat	tacatacatc	tgaatcagag	atgtggttaa	ttaattcagg	agtgaataat	60
cagaaaacct	gtacatgaca	tctcagatta	aaagatgaac	acaagctagc	caaagaggga	120
agggcatttc	aggcaattga	aaaacatgta	cagtggcatt	aggtcccaag	accataacct	180
attccaacac	tataaacagc	ctggtatggc	agtagcaaag	gatatgtggc	aagagtgtaa	240
tccaaacaag	aaagtatggt	accctgaact	taagccagtg	gtggtaggga	ggaagaggca	300
gggttgtatc	catatgggtca	actgtagtga	ggtgaggaaa	gaggaacttg	ggataaccga	360
gtttctggct	ttgagtgggc	agatgacagt	gccattgact	aaaataggga	gaaccagggc	420
agtgggaaag	atgagttcaa	gtttatacat	gctgctgttc	tgaaagagcc	atctatatag	480
taggcagctg	gatatatgga	gttctccagc	ttagaaagag	gctgaggctg	gacatagttt	540
ggaaaccaca	ggtgagtagg	cagtgagtaa	agccatggga	aagactaagc	ttaccaggga	600
agtacaaaac	gagaagagct	tatttagtcca	gaacctggga	cgcactggca	ttgaaggagc	660
aagagttcta	agatgggtaa	ttttattgtg	agacatacgg	cacattgtag	gatgttttagc	720
accatccctg	cactctaccc	actagatgcc	agtaggaccc	actcagtggg	gacagtcaag	780
acacagacat	gtctccagac	atgccc aaat	gtcccctggc	ggcggggggac	aaaatcacc	840
tagttgagaa	ccaccaa aat	taagaggagt	ctccaggatg	ctgacaaagg	agggttattg	900
aatgaacttc	cttttgcaaa	tgttttattc	aaaaatgaca	tacacaaaaa	tgtataatcc	960
ctcccccaat	ataggattag	gtgtcactca	ccaacatgcc	caaaatcaca	ttaagtgatc	1020
aaaccagat	tggaacctga	cttttatagt	ctgactccaa	agcctgtgct	ctaagcctaa	1080
atcacttaac	ccctaactcc	ataaggtctc	cattaggtct	caagtgtgtg	gaggagaggg	1140
ctgattcagt	ctttttcatc	attataatcc	tagcatttgg	ctctgacact	tagcaacagg	1200
agttcaaata	tttactgaat	gagtcacact	tcacacttaa	ctctgaaaat	atgcgttatt	1260
catagaccta	cactgaggta	tttaacactg	atagcttaca	gacaacacgt	tagggcacca	1320

aggggaagat gctcccatcc tgacaagaaa tcagcagcat tggttttgag aattttgttc 1380  
cccagaacag aggctctgcc atcaaccatt tcaattgcat tagcggaaag ttcctctcct 1440  
attgcctcct tatccagcac atcccatgcc gcattgaggc ctcaaggaga tgggggaaga 1500  
ggagtggaaa caagaatgga atggaatatt tttattaaat gaacaaatta taacttttga 1560  
cagtatcata aactggtagt catagggaac aattttctat caagtaagct ttttaaaagg 1620  
tttaaacctc taacctctat tcaaaaatgt tggcctaggc tgggtgcagt ggctcacacc 1680  
tttaatccca gcactttggg aggctgatgg gggtggatca cctgaggcca ggagttgaag 1740  
accagcctgg ccaacatggc gaaaccctgt tgctactaag aaaacacaaa aaccagccag 1800  
gagtggatgat atacgtccgt aatccctgct tcttgggagg ctgaggcagg agaattgctt 1860  
gaaccagaa agcagaggtt gcagtgaacc aagatcatgc cactgcactc cagcctgggc 1920  
aacagagcaa gactccatct caaacacaaa aagatgttga ctgggcgcag tggctcatgc 1980  
ctgtaatccc agcattttgg gaggccgaga caggtggatc acttgagggtt aggagttcaa 2040  
gaccagtctg gcaaactggc tgaaaccctg tctctactga aaatacaaaa attaccggg 2100  
catggtggca catgcctgta aatcccagct actcgggagg ctgaggcagg agaatcactt 2160  
gaacttggga ggcagaggtt gcaatgagcc aagatggccc cactgtactc cagcctgggc 2220  
gacacagcga gactccatct caaaagaaaa aacacacaca atgttttagg aacttgaata 2280  
ggtgccactt actgtatata cctacctcag catattttcc ctactaatt ggccccaatt 2340  
ggtacctttt tgatgaaggg actgtatgtc cacaaattcc tgcttaaata ttgtgggaga 2400  
tccctgcaag ggctaagcca gtgatgtcaa atactataat agacattgct gatgtacatt 2460  
tttctgatgt acatatctac atatgaggct cagagatata gcctcagaat atttatcaat 2520  
atttcaggca gccacatcat ttccaagaga aaatatttca tctctgccta aagccaacct 2580  
taggggtagc ctggaggata cagaattcag gggatgccag caacaccta aaggttttagc 2640  
agaaggacat cttcccagga tgagtatcca ggtccaggta tgctatagag acctaaaaag 2700  
tagaatgatg ggaaatccat aaatgcactt tagtcagttc aacctacata cttgaacatc 2760  
tttttgtgtt gcttggaaag cacggaggga agctataaag caatctgaga gttgagaaag 2820  
tttgccactc tggccgacca gtggctcaag cctgtaatcc cagcactttg agaggccaaa 2880  
gtgggcagat cacctgaggt caggagttcc agaccagcct ggccaacatg gtgaaacccc 2940  
atctctacta aaaatacaaaa acttagccag gtgtggtggc gcatgcatgt agtcccagct 3000  
actgaggagg ctgaggcagg agaatcgctt gaacctggga ggcagaggtt gcagtgaacc 3060

aagatcgtgc cccttcactc cagactgggt gacagagcaa ggctccgtct c

3111

<210> 1318

<211> 2751

<212> DNA

<213> Homo sapiens

<400> 1318

agtttatgac agaagggcaa aaacattgac tgcctcaagg tctcaagcac cagtcttcac 60  
cgcggaagc atgttgtggc tgttccaatc gctcctgttt gtcttctgct ttggcccagg 120  
gaatgtagtt tcacaaagca gcttaacccc attgatgggtg aacgggattc tgggggagtc 180  
agtaactctt cccctggagt ttctgcagg agagaaggtc aacttcatca cttggctttt 240  
caatgaaaca tctcttgctt tcatagtacc ccatgaaacc aaaagtccag aaatccacgt 300  
gactaatccg aaacagggaa agcgactgaa cttcacccag tcctactccc tgcaactcag 360  
caacctgaag atggaagaca caggctctta cagagcccag atatccacaa agacctctgc 420  
aaagctgtcc agttacactc tgaggatatt aagacaactg aggaacatac aagttaccaa 480  
tcacagtcag ctatttcaga atatgacctg tgagctccat ctgacttgct ctgtggagga 540  
tgcagatgac aatgtctcat tcagatggga ggccttggga aacacacttt caagtcagcc 600  
aaacctcact gtctcctggg accccaggat ttccagtga caggactaca cctgcatagc 660  
agagaatgct gtcagtaatt tctcttctc tgtctctgcc cagaagcttt gcgaagatgt 720  
taaaattcaa tatacagata ccaaaatgat tctgtttatg gtttctggga tatgcatagt 780  
cttcggtttc atcatactgc tgttacttgt tttgaggaaa agaagagatt ccctatcttt 840  
gtctactcag cgaacacagg gccccgagtc cgcaaggaac ctagagtatg tttcagtgtc 900  
tccaacgaac aacactgtgt atgcttcagt cactcattca aacagggaaa cagaaatctg 960  
gacacctaga gaaaatgata ctatcacaat ttactccaca attaatacatt ccaaagagag 1020  
taaaccact ttttccagg caactgccct tgacaatgtc gtgtaagttg ctgaaaggcc 1080  
tcagaggaat tcgggaatga cacgtcttct gatcccatga gacagaacaa agaacaggaa 1140  
gcttggttcc tgttgttcct ggcaacagaa tttgaatatc taggatagga tgatcacctc 1200

cagtccttcg gacttaaacc tgcctacctg agtcaacacc taaggataac atcatttcca 1260  
gcatgtgggt caaataatat tttccaatcc acttcaggcc aaaacatgct aaagataaca 1320  
caccagcaca ttgactctct ctttgataac taagcaaatg gaattatggt tgacagagag 1380  
tttatgatcc agaagacaac cacttctctc cttttagaaa gcagcaggat tgacttattg 1440  
agaaataatg cagtgtgttg gttacatgtg tagtctctgg agttggatgg gcccatcctg 1500  
atacaagttg agcatccctt gtctgaaatg cttgggatta gaaatgtttc agatttcaat 1560  
tttttttcag attttggat atttgcatc tatttagcgg ttgagtatcc aaatccaaaa 1620  
atccaaaatt caaatgctc caataagcat ttccttgag tttcattgat gtcgatgcag 1680  
tgctcaaaat ctcagatttt ggagcatttt ggatattgga tttttggatt tgggatgctc 1740  
aacttgtaac atgtttatta gacacatctc ctgggacata ctgcctaacc ttttggagcc 1800  
ttagtctccc agactgaaaa aggaagagga tggatttaca tcagctccat tgtttgagcc 1860  
aagaatctaa gtcacccctg actccagtgt ctttgtcacc aggcccttg gactctacct 1920  
cagaaatatt tcttggacct tccacttctc ctccaactcc ttgaccacca tcctgtatcc 1980  
aaccatcacc acctctaacc tgaatcctac ctttaagatca gaacagttgt cctcactttt 2040  
gttcttgtcc ctctccaacc cactctccac aagatggcca gagtaatgtt tttaatataa 2100  
attggatcct tcagtttctt gcttaaaacc ctgcagggtt cccaatgcac tcagaaagaa 2160  
atccagtttc catggccctg gatgggtctgg cccacctcca gcctcagcta gcattacct 2220  
tctgacactc tctatgtagc ctccctgate ttctttcagc tcctctatta aaggaaaagt 2280  
tctttatgtt aattatttac atcttctctg aggcccttcc tctgcctgct ggggtcctcc 2340  
tattctttag gttaattttt aaatatgtca cctcctaaga gaaaccttcc cagaccactc 2400  
tttctaaaat gaatcttcta ggctgggcat ggtggctcac acctgtaac cctgtacttt 2460  
gggaggccaa ggggggagat cacttgaggt caggagtcca agaccagcct ggccaacttg 2520  
gtgaaacccc gtctttacta aaaatacaaa aaaattagcc aggcgtggtg gtgcaccct 2580  
aaaatcccag ctacttgaga gactgaggca ggagaatcgc ttgaaccag gaggtggagg 2640  
ttccagttag ccaaatcat gccaatgtat tccagtctgg gtgacagagt gagactctgt 2700  
ctcaaaaaat aaataaataa aataaaatga aatagatctt ataaaaaaa g 2751

&lt;210&gt; 1319

&lt;211&gt; 2232

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 1319

```
acttgtttgt atacaaccac gcccggcagg atgaccacca gatgaccggc cgcagcaatg    60
cctccactca gtcccagttg ggcaaagttt cactccactg cggcgacgtg aacaagaatc   120
acggcttcct tatcgtacct gccacaacac atgggaatta tgggagtaca atttaagatg   180
agatatggat gagaacacag agccaaacca tatcaactct atcttcatgt ttgtttacat   240
ttctctcaac tgtatgtttt gtgaccacaga atgtgacccg ggtaaacatt ccatttgaga   300
agaatgtgta ttctgctgtt gttggaagct gcgttgtcat tgatgaagga atatttcgaa   360
gcgctgaaca attcttgata aagttccgaa acaaacaaag cacaatcttc cctcgattta   420
catgggagtt gcattcctgg aaaattcagt atattttaaa accatgcaa atatcctttt   480
aaaaaaatat gtaacatgga gtttaggacc aaggctcagg atatttccaa tccatggttg   540
ggtgcggaac ctgcggatac agaggactga ctataatatc aagagatcat aaggctgtcg   600
gaatggactc tttgtggcaa taagatacca tattataaac aggaccaag gtcatgccag   660
gaggctcgtg tggtcctgtt ttgtcatcca gtcaatacgg ccatcagctt ctggccccag   720
acacctttcc tctgcactgt ggcacagagg agcagactgc tttggagggc agcttccttg   780
gagctccagg gaccctggcc aggcggccac tgccactgac ttcctcggct cactgagccc   840
gtgcctgcag ctctcgtgtt tcctctgtgc tgcagtggac gcttatcttc cccgatggc   900
acatttcttt gtcacagaca ggaccctcac tggcagtcgg aggacatcaa gccctagtag   960
aggaagggac attttcacac taatctgtgc cagctggagc agtcctgcca tctgaacatc  1020
atattttgga accctgagaa gctaggatgc agttaacagc tagatgtcaa ttccctgcag  1080
gcagagacca gttctctgct gccatgtctt taaggcctga tgcaccatag attaattcaa  1140
atccagtgtc taccactcac tcggcttaat gtaagacaag atgaagactc cagacttcag  1200
aacttcagtg tccgcagatg aggattttaa atgcttcgcc tacaacctca attgttgttg  1260
agccaaagat gcaacagctt tgaagaatag aagaattact ctatatttgt caggatctac  1320
gtgacaaaca agcgccactt ggcttacatt acttgcctgg cttggatccc atggaatgga  1380
ggagcattgg aaccaagagg aaaaaatta aagtgccttg ggacagcgag ccaaactctt  1440
```

acatagtatt tgaaatggtg tggcaaacat gaaattatth taggctcaag attggtgcta 1500  
 gttttttacc ctctttttga aaaaatagta aaatgcacat aaagggccct gccagaggtt 1560  
 tagctcataa aatctgccaa tcattggatg tgctaattgg tgtagcaatc cagtgggtggc 1620  
 ctggattagg actcaaaaac tgacccttac cacccttggg gtcctgcagc aaagacagcc 1680  
 taaatcgaaa agactgatgg aagtatatca aattacgaat ttctctatcc ctgaaaaatg 1740  
 cctgcaatth ctgtttctcc atcactccag aaatactcaa aacagcaaaa attaaataca 1800  
 tatgaagtga acacaaaaga cctccacaga aaaatcagtg gtcactctgt tgacgctatt 1860  
 gtcattgct cggctggcca gtcactctggg ctaagttttg actttggggc agtgcttcaa 1920  
 aatcagcaac ctttcagcca aaagactgtg gaatgcagcc aagaccacct gtggaaagtg 1980  
 aattatagca tctttaatth actaccttgg gctatgatgt cagaaacca gcatggaggg 2040  
 cgcaccagtt cttgtgtggg aaatctctca gagccccat ggaggcccc aaagtggctc 2100  
 tggcaaagct gtaggggtgg aggtaacaaa aaaggggaca cctggctctc cttcttaaat 2160  
 cagctacca tgggcacaca tttatattgg aattttaggg tcagaaaata ccaaaattaa 2220  
 atcttctaga ag 2232

<210> 1320

<211> 2362

<212> DNA

<213> Homo sapiens

<400> 1320

ttttaagatg aagtcttgct ctcttgccgg ggctggagtg cagtggcatg acttcggctc 60  
 actgcaacct ccaccgcca gcttcaggcg tttctctgc ctcacctcc caagagctgg 120  
 gattacaggc gtgcaccacc attcctggct aatttttgta tttttagtac agatgaggtt 180  
 tcaccatgtt ggccaggctg gttttgaact catgacctta agcggctctgc ctgccttagc 240  
 ctcccaaat gctgggatta caggcatgag ctactatgcc tggcctgggtt tgattttaga 300  
 gatagacagg ctctgtgttg ccctggctac agtgcagtgg ctgttcacag ctgtgatcat 360  
 ggcacaccgc agcccaaac tcaaggtggg ctcaagctgt cttcctatct cagccttcct 420

ggtagctagg accacaggca cactccacca caccagcta gttctaggtg ttttgagtaa 480  
gttagacact tggtagctt tgtgtataaa agactcagtg acctgcttag attaaaacta 540  
gggcagtgga atgaaaaatt ctcatgggaa gtgacagttt attttcttca cttactggta 600  
aatgaaagcc aaaaagctga attttcttaa gtaaaactaga aagaacatgg agtgtgtgtg 660  
actaactagg atgtttgtgt ttacgtttac aaagataact ttcacctaca gtggtttag 720  
atacaagtaa taaaaatgaa caagaccagt attctaactg ggttaccttc caagattgga 780  
aatttaacca ggcgttgaaa tgctgaaaat ttctgttaga aaagatgggc gaaggaatta 840  
atggtggata ctgaaaccac agttggctgt atgagttgaa ctgtaacagg caatacctgt 900  
tgtatggcca acatgattac tcagttgcag tgcacatgtt ggctggttgg catatgctct 960  
gtaagcgag cttggcagtc ttttaagatcc atagaaatac tctttgacgt ttgatctcta 1020  
agttccattt ctgggcattt gtccttaagg aatggaaaag caggcaaact aaagctagtc 1080  
attgcagcaa taaccactg gaaacaactg aaaatataat gagagaattg tagagtgtctg 1140  
gataaaatgt tgtgggtcca ctcaaaatga ttcgagtgtt gtagtgtgga aaatgcccaa 1200  
gccagggggg acacatttaa aatggtgggt acactctgat tgtgattatc aaatatatag 1260  
atggacaagg acaggagggt tttttgaaaa gtaaagacag atgagaagtg taatataacc 1320  
taagtcttta aaacgtagaa acatttaaaa atacaattgc tttgaatttg agtggactca 1380  
tataaaacaa gaattgtctg gatttgcgtg cttgctgtta aggcagggtt cttgaaaaga 1440  
gctgtgtgtc cactgcctca atcactcctc acagtcctgc tgcttctctc cttgctgaaa 1500  
atgctttagg ggtggaatgt ctgttcttaa ccactgtggg tggcttcata aatcacctcc 1560  
ttactgaagt gtgcttggtta ggcctattgg ttatcaaag gggcacagt tagctgcctc 1620  
ttaaaaagtt gtgaggaatg agttagaact ggatctgaag tcctcaggta ataggcatgg 1680  
ctatgactgg gtgactttaa gcattgttgc ttctcaactt gctttgtatc ctcagcagtc 1740  
aaaccagggt ctcttggtc cattcagact cttgggttct gctcttgacc attttgcaaa 1800  
gagttctgaa ccttcatggg caaggtcaag caccctgtga ctgggggaga acctttgaac 1860  
ctggagtgtg ggcctgggtt cgccccggat ccctgtccat tgcttgctgt gggccttggg 1920  
ttctttatct gtaaaatgga ggtaatgcct ggattacaag gctgctataa ggatgagagg 1980  
ggacaatgag ggtacttttt aatgaaagca ttctgtcac caccaggga ccatagtcag 2040  
gatttggggg catgtaggtg tcattccaca gccacttacc aagcagccct ctcttagctt 2100  
ggtgctggga ctcatgcct ctccaatgga atttccaag tgtgttgagg gctgtcttgc 2160

tccttaccta cttgattctc ttgcagatct tactgtgccg agattgctca caatgtttcc 2220  
 tccaagaacc gcaaagccat cgtggaaaga gctgccaac tggccatcag agtcaccaac 2280  
 cccaatgccca ggctgcgcag tgaagaaaat gagtaggcag ctcatgtgca cgttttctgt 2340  
 ttaaataaat gtaaaaactg cc 2362

<210> 1321

<211> 2669

<212> DNA

<213> Homo sapiens

<400> 1321

ccaaggatcc aaattatgga caaataaagt ccctaaatgg actcacattc tcagagcaat 60  
 ttgtttcaca ccccttctct agtagatgtt gcaagagcag gtgatggaac tagattcaga 120  
 ctttctctga atacagagct caaagtttta tttagctaaa agctgagaag ttctgctttt 180  
 ggtaataggt acactacttt tcccagccat ctctgtggag gctttgcaaa gataggactc 240  
 tgaaaagctc ctgataatcc ctggaacaga ctacctcca tgtcctttga cctgaagtgt 300  
 tgagttgtca gactgacaca ttgaaatttc acccatctga tgtaaatact aataaatggc 360  
 taaagagata aaaagtaatc gtcaggaaag aggagccaca ggtctggtga attcaciaac 420  
 tgaactggtc ataggacagt ggaaagtaga ctgtagtact tttcctttcc ttaaggctcg 480  
 ctgctacaaa gaaccaccac ttcatgtaag agctgctttg gactccttaa gtttcataca 540  
 tatgtctgag ggcttgtgta gtagagccat gcgtgaggaa tttgcaactc tcagagcagt 600  
 ctcttggaa cctggggctc ctttccatgt ttctctgggg gctgaaagag tgactcatgt 660  
 ctgggaatgg tatgtatggc agagtatgtg ggcatttggg tttcttctact ggtgtgcccc 720  
 catcctctgt cccatgattt tcaacttaga taaagagata gatatttgtt tcccacatct 780  
 tggagataag taaaatgata ttctcttat gccataccac ataactaatc tgcatgacaa 840  
 gaccagttag ggattgttgg ttgcaggata cagtgatcat ttagtagatc tgatcaatca 900  
 aaagagctac aatccaaaag caactattgg gaaaggccta gaagcatctc taggaccatt 960  
 gtttcttaga cctatactca tagaattgcc tctcttctca gcaaacctg gaaatccacc 1020

ggaagataaa acagtctgag caggagctag cctatctgga aaggagagaa cgagaggtaa 1080  
actttggtga cctattactc ccttgacctc agctcttttt gctttctgat atagacttca 1140  
taggctgtgc tgatccctcc ttataagaag atggagaaca aaagcagcct caaaagatag 1200  
tgcatacatt tgccaaatta tataatacaa tcaaaatagg tgctttttat tattttgtaag 1260  
tttatacttc aatgaagttg atatcttttt taaaagggtg tgtaggggtc tctaggtaga 1320  
taacactcct ctttcctgct tagcttttaa attagttgag ttaatgaaca agtggtgaat 1380  
agcgtgctg aaatagcatc ttttactatt aaaggctaag ctggaggaag tagcttagtg 1440  
tcagagtcaa atggacttgc tacctcaacc acacagttag ggtgaattac ccagtcatag 1500  
gcttcactgg cctctctcat gatggttaag aaccaccta tgggtcaggc acggtggctc 1560  
acgcctataa tcccagtact ttggggaggct gagacgggcg gatcacttga gctcacaagt 1620  
ttgaaaccag cctgggagac atggcgaaat cctatctcta caaaaaatat aaaaattagg 1680  
tggacatggg gtgtgtgcct gtagtcccag ctacttgaga ggctgaggga ggatcgcatg 1740  
agctgggagg cagaggttgc agtgagctga gtttgtgcca ctgcgctcca gcctgggtca 1800  
tagagccaga ccttgtctca aaaaaaaaaa aaaaaaagga agccacctgt ggagagccag 1860  
gcacagtggc acatgcatgt aatcccagca gtttaggagg ctgaggtggg agaattgctt 1920  
gagcccaaga gttccaggct gcagtgagct atgatcacag ccctgtactc cagcctgggt 1980  
cacagagtaa gtccctgtct caaaaccaa caaaagaatc cacctatgga ggactgttag 2040  
agatagtga ttcacaaact gaactggcca taggacagt gaaagtagat tgtagtat 2100  
ttcctttcct tagagttgtc tactacaaag aaccacctc ccatgtaaga gctgctttgg 2160  
actccttaag ttttatatta tatgcccag ggcttgtata gtggagggtc tgtgtacttt 2220  
cccctgcttc tcagaagggg aaaagacagc ggaaccaagc gtgccaactt attctttcca 2280  
aatgtttaag ttaggaagtc actgctttct ctagaagaac gtgtaaagga gtgagagatt 2340  
ccaggagtta ccaagtgagc tactttcact ttaaaagaaa taacaaggcc ggggtgcggtg 2400  
gctcacacct gtaatcccag cactttggga ggccgaggct ggtggatcat gaggtcagga 2460  
gttcgagact agcctgacta acatagtga accccgtctc tactaaaaat agaaaaatta 2520  
gctgggcatt gtggcactca cctgtagtcc cagctacttg ggaggctgag gcaggagaat 2580  
cgcttgaacc tgggaggcgg aggttgcagt gagctgagat cacgccagt tactccagcc 2640  
tgggcaacag agtgagactc tgtctcaag 2669

&lt;210&gt; 1322

&lt;211&gt; 3179

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 1322

```
atacttacaa ttacgagatt tatatttgca ttagtctctt tggctggtgg gtaggggtga 60
gaggctcttc ctggatccct tattttctac aggagaggag gaaaacacct gggatgctcc 120
agtgctctta cgcagataat gatcattaac atcagcctct ctgatcaaag gctctattta 180
tgaaatgttt ggaaatgaat gctgtttttc aacaggagaa gtgattaaaa ttactggtct 240
caaagttaag aagatcatag ctgaaatttg tgagcagatt gaaggttgtg agtttctaca 300
gccatttgaa ctgcctatga attttccagg tctttttaag attgtggctg ataaaactcc 360
ataccttact atggaagaaa tcacaaggac cattcatatt ggaccaagta gactagggca 420
tccttgcttc tatcatcaga aggatataaa actagagaac ctcatcataa agcagggtga 480
gcaaatcatg ctcaactcag ttgaagagat tgatggagaa ataatggtga gctgtgcagt 540
agcaaggaat catcaaactc actcatttaa ttgaccttg tcacaagaag gagaattcta 600
cgagtgtgaa gatgaacgta tttacactct aaaggagatt gttgaatgga agattcctaa 660
gaacagaaca agaactgtaa accttacaga tttttcaaat aagtgggact caacgaatcc 720
atttcctaaa gacttttgtg gtaccctgat tctcaagcct gtttatgaaa ttcaaggtgt 780
gatgaaattt cgaaaagata taatccgcat cctccccagt ctagatgtcg aagtcaaaga 840
catcactgat tcttacgatg ctaactgggt tcttcagctg ttatcaacag aagatctttt 900
tgaaatgact agtaaagagt tccccatagt gactgaagtc atagaagcac ctgaaggaaa 960
ccacctgccc caaagcattt tacagcctgg gaaaaccatt gtgatccaca aaaagtacca 1020
ggcatcaaga atcttagctt cagaaattag aagcaatttt cctaaaagac acttcttgat 1080
ccccactagc tataaaggca agttcaagcg gcgaccgagg gagttcccaa cggcctatga 1140
cctagagatc gctaagagtg aaaaggagcc tcttcacgtc gtggccacca aagcgtttca 1200
ttccccatcat gacaagctgt catccgtatc tgttggggac cagtttctgg tgcacagtc 1260
agagacgact gaagtcctct gtgagggaat aaaaaaagtg gtgaatgttc tggcctgtga 1320
```

aaaaatcctc aaaaagtcct atgaggctgc gctgctccct ttgtacatgg aaggaggttt 1380  
tgtagagggtg attcatgata agaaacagta cccgatttct gagctctgta aacagttccg 1440  
tttgcccttc aatgtgaagg tgtctgtcag ggatctttcc attgaagagg acgtgttggc 1500  
tgccacacca ggactgcagt tgaaggagga cattacagac tcttacctac tcataagtga 1560  
ctttgccaac cccacggagt gctgggaaat tcctgtgggc cgcttgaata tgactgttca 1620  
gttagttagt aatttctcta gggatgcaga accatttcta gtcaggactc tggtagaaga 1680  
gatcactgaa gagcaatatt acatgatgcg gagatatgaa agctcagcct cacatcccc 1740  
acctcgccct ccgaaacacc cctcagtaga ggaaacaaag ttaaccctgc taaccttagc 1800  
agaagaaagg acggtagacc tgcccaagtc tcccaagcgt catcacgtag acataacca 1860  
gaaacttcac ccaaatcaag ctggcctgga ttcaaaagta ctgattggta gtcagaatga 1920  
tttggtggat gaagagaaag aaaggagcaa ccgtggggcc acagcagtag cagaaacatt 1980  
caaaaatgaa aaacatcaaa aataacaaga tgtgacagaa gccacttagg cagcaaacat 2040  
aaatgttgca gtgaaaaaag aagctagcct tctagctgaa aaacgagtat tccccaatgg 2100  
actccagaag aaacttgatt catcgctgca aaggaaagaa caaccttaaa acttttaaca 2160  
gataaaactt acagaaacct atgatataga attcatatag tctattctgt tgtgtctaaa 2220  
tctgtaggca ttgtgttgtt gttctttagg acgtatttat ttaacttgca cattttttca 2280  
gattcttatt tctactacca acaactaagt aattgggaaa taattctgta tttcagtttc 2340  
tgagtaaaac cagtctgaaa taggataaaa gccaccaaatt attttctttt ttttcagaa 2400  
tttgttttgc catttttttag tgctatcatt attcctaaca agactaactt acggaaaaat 2460  
aattatatct gactgattta aaatgttcag gtttcttatt caaatccctt ggaactatgg 2520  
aaaggagttt gatttcacat tcacagtgtg tttacaaaat acgctgtgtc ataaatatgt 2580  
ttgaattcca acagccaaag ccattgagag tcataggagt tttccataac cttctcttct 2640  
atgaccaaac aacaagctca tgactgaaat ttcaccagat ttctgagacg atgtcttaat 2700  
attctatgtg ctatgtacca gataattctt tagatgaatg tttcttagga ttgtaggaaa 2760  
attatctagt taatcataat atttgatgga aagaaaaaga caataaaatt gtaatataat 2820  
aaatttggct gacaagaaac caaagtgatt ctttaattagt atacatcaga atgatgctct 2880  
tatagttgta ccattctataa aaattacttt aagggtctct acattttaat aatttatctt 2940  
attatgtatt aagtatacag gaacaatatt attttccct taacaaaatg aagagacagg 3000  
ctatctgggtt aatgttacat aggaatttaa tagtaatgct tgaacttcatt ccatagatca 3060

tactctgtac aaaatttggt agctaacatc ctatctcata attattttat gttttgtgga 3120  
gaaatttggt gattttgtac caaagtgttt ctgaagacaa taaattgtga gtcaacttt 3179

<210> 1323

<211> 2379

<212> DNA

<213> Homo sapiens

<400> 1323

atctcagaat gaaggcatgg ctggggtctg gctgtctcct ggtggccgga aggagacaga 60  
cggcaaagga gaagctgcct gtctctgcac aggtccatgt ccctgaggaa agccaacgtc 120  
acagagaaat gatgaccact ttctcaaacc tggcttcgga tttgcacgtt ggctgccaaa 180  
gctgatcagc agcgggcttt gtgaagatgc ctggtctacc acgtgcctcc agctggtcac 240  
gccccagact ccctgagccc tctggaaggg cagcacttgc ccagtgcctc cctccaggtc 300  
ctgccacatc caagaaccac ctggactatt atttacttag tattttaaac caatgtactt 360  
tttaaactcc aattttttaa taagatcatt tatgtcacca tataacaccc aaagcagtag 420  
aatttgtcat acacagaagg caatgctaaa aatacaatga aaatggaacc aggaagtcta 480  
gcttgatacc cttggcctgt ataactgagc cttgtgccag ttaaaagggc aaagcagtag 540  
gtgctcaggg ggtgtcgggg ccctgaaagc tgatctgac cgctgctgcg tattcactac 600  
cgccctggga cgctccagc agaccacctc actgggggaa acatcaggac agcgtggcca 660  
ggagcccaat gctgccacct catagatggg tatctgagat gagtcacga acttctgcaa 720  
gcctcagttt cctccctggt ctaatggaac cctccttggc ggcttcacag ggtgatgctt 780  
ggggcaggtg atggagatgt gggagaggca gttattttta accaccagc caagcccctt 840  
gccaggaggg actcccagaa atgaagcctt acccttgagg gagttccccg cactccaag 900  
cttggggcct gggatggcag ctgtgagggc accagcacca tctggggact cgctgggtac 960  
caattatcac cgcccttggg ctacttcaaa ggctgcccac acagacacac cctccttggg 1020  
aaccagtcct caggaggaag ggcacccaag gaaaggggga aggcttcctg ggctagagcc 1080  
ccttcagggt ctgacacgcc attgacactg accacgtcat tcattaagca agcaccaact 1140

atacatcatt cactatccca atctaatttg cacaagccct taggcaggtg ctactattat 1200  
ccctgtttta cagagaagga aaccgaggct taggagatga agtctgaggt gttggtggag 1260  
ctgggattta aaccaaata tgtccaactg caaagcatgt aagtaacaat tttagagggt 1320  
atacggaggt gaccctaagt aacaaggaat cacatatagt gagcaagcaa tttgcttttc 1380  
agtttttggt caatccttat gattatttag aggagaaagt tcagtttggt gctggtatat 1440  
cttatgttta tcacccgaca gttgttaatc tctttttaac aaagaataca ggccaaggcc 1500  
ctgtgacttt agctggcttt ggtatttggc caaaagttaa tgactttggc agttagtgtt 1560  
tttatccatg ccaagcgatg atgattttct ctttagtgac agacattttt taaaaataa 1620  
attcacataa aaaagtagtt ttacagatga agcactaaaa ctagtgcatc tcatcttaaa 1680  
ctgcaaatta taaagggaat aatagtaact tgacagtgga gagacctggc agacaccacc 1740  
ttcaccaact gatcaaagtt aacatcgcca gaaaggggac agatggcatg tgcctctcga 1800  
taagatgcac tgaagacaca cactcacttc tgcaatattc ctgccaagaa tgcctcatct 1860  
gaatctaate tcgagtataa ccatcagaca aacccaaatt gagagacagt ttacaaaaca 1920  
ccagccttgt actctgctta atatgtcaat gtcacaagag agaaagacag actgaagagc 1980  
tgatccagac tgaagaaggc tcgagattaa tgcaaaagct gatctgggat tgcactcttg 2040  
acctcaactc tccccttttt attgttaagg gacactactg ggacaatttt tttttttttt 2100  
tcgttttgag acagggtctc gctcagtcac ccaggctgga gtgcagtggg ggaataataa 2160  
ctcactgcag ccttgaactc ccggactcaa gcaatcctcc tgcctgagcc ttccgagtaa 2220  
ctgggactat gggcgtgtac cacaacacct cgctattttt ttttctctac tttttgtaga 2280  
gacggggtct cactatgttg ccaggtctgg tttcaaactc aagtgatcct tccacctcag 2340  
cctctataaa atttgaataa agttgtagat gaaattgggt 2379

<210> 1324

<211> 2515

<212> DNA

<213> Homo sapiens

<400> 1324

tttagagatg aggaaattga ggcctaggga gattaagtta ccagttcaaa gtagtgcagc 60  
tacttaaagg atggaggcag gatgcaaact caagcttaag ccaccattat acttctctag 120  
cactatagga tttgagtctc ccgatggctc ctcatacca cacttcaaac cctgccttct 180  
taccatctcc tcttgctcct tgacccaaag ccttgccatg gcctcctctc tctcatctac 240  
agtaaaaggc aggctgttta cacaggccca caagaccctt gattatcatt cccctgttat 300  
cttactatct tactgttcac tcctctacct ctctccactg aagccaccct ggcctcctcc 360  
catttttagtt tctttgact gacagggtg cttttaagaa catgtttcat tcaagtatga 420  
aaataactca tctcctgcaa gtctaaataa atatcacctt ttcagtgaca cctaccctga 480  
acatatattc tcttaacccc tgaccccaact atattttata atttactttt ttcttattaa 540  
tagtctgctg ttactacccc caccatacac acacaggaat gtaagttcta tgaggtcagg 600  
agctctccct tccccatttt gttcactgcc atttttcaaa caccagaac agtgctgggt 660  
acataatggg tggtgggtag atgtttgttg actgaagatg gatgaagctc aggtgtgtcc 720  
aatttcaaaa ccactgagta ctgagtcaca cttgcgtata ttttatatgt gaacacaaac 780  
ctacttgtct gtatctgcca agttaatctg ggctacttct aactgtatga tgatcagagt 840  
atcctgtgca aatacatgtg ggagctactt cctttaattt ccagtctctc ttgagacagc 900  
actaatgaag ctgtcacttg tggcttccta tagggccaga catggtcaga aattgtggtc 960  
agccagcttc cacatatgag gatactaccc cagccctgaa gagcggcttt ttttgtttgt 1020  
tcatttttgg taactttgcc tttaaaaaag aagaaatatt atgcttgta ttaccagcct 1080  
tgttgaggac tgagatgtgg gaggatgatt aaggagcatg gtaccttagg cagtatttgt 1140  
agtgagtga aaaggatgta gctttatgat taagctacaa tttttgccac cctgctattc 1200  
aaagtgttga atagaggccg gaagtgggtg ctcacacctg ttaccccagc actttgggag 1260  
gctgaggcgg gtggatcacg aggtcaggag atcaaaacca tcctggccag cgtgggtgaag 1320  
ccccgtctct actaagaaaa attagctggg tgtggtgcat ctgtggtccc agctgcttgg 1380  
gaggctgagg cgggtggagt gcttgagcct gggaggcgga ggttgcatg agccaagatc 1440  
atgccaatgc attccagcct ggcgacagag cgagattctg tctcaaaaaa aaaaaaagt 1500  
attaaataga aatcatgttt ctctttttga aaaaaaaaaa taggttattc ttggtgagaa 1560  
tttgacttca aattgtccag aggttatcta tgaaattaaa gaagagacac ctgttttcta 1620  
caaactcgtt cctgatcctg tgaagaatat ctacatttat ctaacagctg ggaaagaggt 1680  
aggtagaaat actagttatt gcttctgatt tatgaataaa aatggtttaa ttgatgtcat 1740

tatctagtag caaagctttt actttgaact acagagttaa agcagtgtccc caggctttga 1800  
 ggagacccgc agtggttcac aggcacggaa ttaaaaacct tactgactgt cagtaagtaa 1860  
 gcaagaaata ttatctatct agacaatctt attattggct atatttccag tgccaagtct 1920  
 ttcagaggag ggtgtgcttg gaaatgggag cataatcagc aaggtaactg aatttacaca 1980  
 tttatttgtt gggcactgaa cggtttagat catttatgaa tataaccaat gggactggct 2040  
 ttggaatttg gggtaatat caggccacag tctcatacac attcatgaac caggaaatat 2100  
 atggtactcc cctccccct cttcatttat cttgctgttt tggcttttct tttgcttctg 2160  
 cttactgaaa taaaagtaat atatttttat attttcttca tctttacca gctgtgtcac 2220  
 caagggagg ggaaaagaaa ctaattgtta atgagtctct actatgcatt agtcactatt 2280  
 ctttgcata tctctgtcta ggtgcataga attgtgtaca tatacataca cacaagtgt 2340  
 gaaaacagt ttaatgaaat gtgttactga ccgggcatgg tggctcatgc ctgtcacccc 2400  
 ggcactttgg gaggtgagg caggaggatc gcttgaggcc gggagttaa ggctgcagt 2460  
 agccatgatc aaaccactgt accctagcct gggatgatga gcaagaccct gtctc 2515

<210> 1325

<211> 2339

<212> DNA

<213> Homo sapiens

<400> 1325

tttttttag agacagggtt tcaccatgtt ggccaggctg gtctcaaatt cctgacctca 60  
 agtaatccgc ccacctctgc ctccaaaagt gctgggatta caggcatgag ccaccgtgcc 120  
 tggccgacct cagctctttt gaatctttct tccttgtcat taaccctgcc tcagtggctc 180  
 ctataccagc ccacaaaaa agcacccctg cccaccttag ctggccagcg tgcccactcc 240  
 ctccctagcc acaagcctgt gccccagcc tgggccctgc ttcgtccgaa gcagccttct 300  
 tccaatagt aggaaaacc tgaactcctg ttactgacag ttgtcattca tcccttgaat 360  
 gcttactgtg gttccccgga aacaattacc tggctggcct cggttaattc tcacaattct 420  
 ttccagtgt atcactcatg tgtctgtcca ctgtacctt ggctttctcc aaggctactt 480

ctccaagact cagttccttc cttggctctt ggtttctcca gatacctgcc catggcgtgc 540  
ctgggtcctg cctcaggga tccagcctgg atagttgcca gaaagggttg tgaggattgg 600  
atgccccctt ttgtctttgt cttttcattc attccttcgt tcctttcttc ctttccttcc 660  
ttccttcctc tctctctctc tctctctttc tttctctctc tctttctctt tctctgtctc 720  
tttttctttc ttttctttcg cacttgtcac ccaggctgga gtgcagtggc gcaatcttgg 780  
ctcactacaa tctccgcctc ccagattcaa gcgattctcc ggcctcagcc tccaagtag 840  
ctgcgattac agacgcccac caccatgtct ggctaatttt ttgtaatttc agtagagatg 900  
gggtttcacc atgttggcca ggctggctct aaactcctga cctcaggtga tccgcccacc 960  
ttggcctccc aaagtgtctg aattacaggc gtgagtacca tgtccggcct ctttcctttt 1020  
catttcttct ctttcctttc atttcttctc ttcccttttc ctcccttcct ccttccttcc 1080  
cttcctttct tccttcccct ctgttctctt ccttccttcc ctctctcccc tctgtccata 1140  
catttttggt gagaaccttt tctgtgccag gtagttgcag gcactcgagc atagagcccc 1200  
atgtagacct ggccccgtga agctgacctg cagcaggcca gaccaggccc catgtgtgca 1260  
ccctcctctc ctggcctttg tgtcctcctt aactaacacg ggctctcttg tccccctgcc 1320  
ttggtacagg ccagtttga cctggccttt gtcgtccgct acaagcctga tgagcagccc 1380  
tactgatgc cacaccatga tgctccacc ttaccatca acatcgccct gaaccgagtc 1440  
ggggtggatt acgagggcgg gggctgtcgg ttcttgcgct acaactgttc catccgagcc 1500  
ccaaggaagg gctggaccct catgcaccct ggacgactca cgcattacca tgaggggctc 1560  
cccaccacca ggggcacccg ctacatcgca gtctccttcg tcgatcccta attggccagg 1620  
cctgactctc ttggaccttt cttctttgcc gacaaccact gcccagcagc ctctgggacc 1680  
tcggggctcc agggaaacca gtccagcctc ctggctgttg acttcccatt gctcttggag 1740  
ccaccaatca aagagattca aagagattcc tgcaggccag aggcggaaca cacctttatg 1800  
gctggggctc tccgtggtgt tctggacca gcccttggag acaccattca cttttactgc 1860  
tttgtagtga ctctgtctct ccaacctgtc ttctgaaaa accaaggccc ctttccccca 1920  
cctcttccat ggggtgagac ttgagcagaa caggggcttc cccaagttgc ccagaaagac 1980  
tgtctgggtg agaagccatg gccagagctt ctccaggca caggtgttgc accagggact 2040  
tctgcttcaa gttttggggt aaagacacct ggatcagact ccaagggtg ccctgagtct 2100  
gggacttctg cctccatggc tggatcatgag agcaaaccgt agtcccctgg agacagcgac 2160  
tccagagaac ctcttgggag acagaagagg catctgtgca cagctcgatc ttctacttgc 2220

ctgtggggag gggagtgaca ggtccacaca ccacactggg tcaccctgtc ctggatgcct 2280  
ctgaagagag ggacagaccg tcagaaactg gagagtttct attaaaggtc atttaaccc 2339

<210> 1326

<211> 2846

<212> DNA

<213> Homo sapiens

<400> 1326

tcaattttat aagaaactgt taagctgttt tccacagtgg ttgtactatt ttgcattccc 60  
gctagcaacg tatgagagtt ccagttctgt atccttttca acacttggtta ttgtcagtta 120  
aaaaaattat tttagttagt atgcagtggg atctcattaa agacacacaa atggccaata 180  
agcagatgaa aagatgctca atatcattgg ccactgggga aatgcaaatac aaaaccacag 240  
tgagatacca cttcacaccc accaggttta ctataatcaa aagatggaaa ataacaagtg 300  
ttgataagaa tctagagaaa atggaaccct catacactat tgggtgggaat gtgggggtgtg 360  
gcagttgctc tgaaaaacag ttcctaacat taggttaaata agagttgcca tatgatccag 420  
taactccact cctgggtata tacctaagat aattgaaaac ataagtccaa acaaaaactt 480  
gcatgtgaat gtttatggaa atattgttca tagtagccca agagtggaaa caacccgat 540  
ttctatcgac taatgaatgg ataaacaaat tttggtttat gcaggggatt gaactatgta 600  
gtgatgcacc atgctccaac atgggtggac tttgagaacc ttatgctaag taaaagaagc 660  
gagtgcacac agaccacata ctttatgatc ccatttgttt ggaatgttca gaatatggaa 720  
atctatagat tcaggaagta gattagtggg tgtctggggg tgggtggggat agagggatta 780  
gaggttgaca gctacaggat gcagagtttt attttgggat aaagagaatg ttctaaagtt 840  
gattgtgggtg atggatgcac aactctatac aacaaacat tgaattgtat actttaagtg 900  
ggtgaattat atggtatgtg acatatctga aagctgttaa atttaccagt tttaagagta 960  
caatttaatt tttagtgaat atacagaatt gtgcacatat caccacaaaa tagtttttga 1020  
agatttttat tattccagaa agattctttg tgcttattag tagtcaatgc ctatttccac 1080  
tccagccccg ggcaaccact tcatctgctt tctgtctcta gatttacct tttggcatat 1140

ttcataataaa tggaatcata ttccttttga aatcatacag tttttgcttc catcttctta 1200  
 ggaccagttt ctccaatcct tgtaaatgct tgttactgtc tgtattgttt attacagcta 1260  
 tcctggtagg tatgtaatga tgtcttattg tggttctaata tttcattttc ctaaagatca 1320  
 atgattttga atatcttttt atgtgctcat tagtcattct tatactcttg gtgaaatgtg 1380  
 tattcaaatac ttttgtctat ttaagaaatt ggattttttt tattgttgac ttttcagagt 1440  
 tctttatata ttttggtaga aagtttttct ggtagatat gtgatgtaaa aatattttat 1500  
 tccagtctat ggcttgtatt ttcattctcc taacaatgtc atttgcagag caaaagtttt 1560  
 taattttgat aaaatcgagt taattttttt ttctattatg tatctgagaa ctactgcct 1620  
 aaccaggat cttaaagatt ttctcctatg ttttattttt taaaattttg aagttttatt 1680  
 ttacattttat accactttga gttaattata gtacaagggtg tgaggtatag gttgaggatc 1740  
 cttttttttg catgtgggtg gtcaattgtt ctggcaccac ttgatgaaaa tgctatcttt 1800  
 tttctattca actgattttg cacctttgtc aaaaatcaat ggaccatatt tgtgtggatc 1860  
 tacttctgtg tgcttccctg tgtgttaact tttctcttgc tctgtctcct tttgtcttcc 1920  
 tgtccctact tgtgtttttt tttcagtttt ctattacttt tctgattctc tccctccttc 1980  
 tcctgatttt cccttcccc attcccttcc tcaaaatgaa gcatttagat tgcattgttt 2040  
 tatatatcat acttattttt agtttaaaaa gcagatgtga agcgtttgtg tttttcttta 2100  
 caagtacaat atgctggaaa caaattaact tttaaattat aatccctttt ttttttggg 2160  
 acggagtctc gctctgttgc ccaggctgga gtgcagtggg gtgatctcgg ctcatgccat 2220  
 tctcctgcct cagcctccca ggtggctggg actacgggcg cccaccacca cgcccagcta 2280  
 gttttttgta ttttagtag agatgggggtt tcgccgtgtt gggcaggatg gtctcgatct 2340  
 cctgacctcg tgatctgcct gccttggcct cccaaggggc tgggatcaca ggcgtgagcc 2400  
 attgtgcctg accaaattat aacccttaat taatttttct cagtgaatta gtgaccttaa 2460  
 cgaaagatgg caatctctct tcccaaactg tgtgtttcag aacttctgca aaaggcatca 2520  
 cttctccagt gttacagttt ctttaaaaaa gaaattagt gctggacatg gtggctcatg 2580  
 cctctaattc cagcacattg tgaagctgag gtgggaggat agctttaacc caggagttcg 2640  
 agaccggctg ggcagtgtgg cgagacccca tctctacaga aatggaaaa gttagctggg 2700  
 tgtggtggtg gcatgcgcct gtggtcttag ctgcttggga ggctgaggca ggaggattgt 2760  
 ttgagcccag gaggttgagg ctgcagtcag ctgtgttcac accactgcac ttgcatttca 2820  
 gcctgggtga cagagtgaga cacttt 2846

&lt;210&gt; 1327

&lt;211&gt; 2347

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 1327

gctgcgggaa attgctggag aagggggagc caagctggag taaggctggc ggtctcccgc	60
attgacttca taaccaagtt ctgggtccct gcctctggag tgcctgatga gacaaaacgg	120
ctcctcgtcc tgcacccccg ctgctacttc cagaattcag gcctcgtggc ctggagcctg	180
cactgttcca tgagcctcct gagcaacctg gagtcctctg tctttcttcc ctcagtgaga	240
tgcgcctact tctccctgga gaagctcgag gaagcaggaa tgctggagat gagctgctcc	300
tcactctcac tcctgggtgt gctgggcagt ggggtgcaat gtgcacgtag gtgcacactc	360
tccctgggcg gcagcgagaa gcagaggtct gatctgtggc cggatgagga gaggaagtgc	420
aagtaaagca gctgcagcga gacctcgtct gctcaggggc ttgttcttac atcttttgca	480
gggctgtttt gaagtcagta ttactttaag cactccaaat taccagcac accctgcctg	540
catggcgctg cgctgcacct tcactctggc cacgggtctg gcagtcggc caccaattcg	600
tcctgcttcc ctgggactcg ccggctttta gcactgcaat tcactcagca aactgggact	660
gttggtcacc ctacctggca gccagtgata aggtgagggc cactcctggg agggaggaca	720
cctgtgggga aaattcttgt gttatttatt tctccttcgg gataggggtgc ctgcagcgt	780
tcatgggagg ggggtgggctg atgctgcggg ctcagaagtt tcaaggcat ctggggagac	840
cagatattca gagaccttct cctagatgtg cctgttccat gtatcaggga cacaggtttt	900
ccaacaggg ctggtgtcat tggcatgaca gacctgcctt ggctgagcgt tcacccgtct	960
tcggagtcca gccaccttag caagtcctgg gtttgttctt cagattttgc tgctcgccca	1020
ttgcctggat cgggggctac tttgtaaacc accaggaaga ctccagtgtt tctgtttaat	1080
ttttagatgt ttgttaattg ctcttggcct ctcatatac ccctgtgggt catccaggaa	1140
atatactcac cactgtctgt tctctgagtt ttcatattca ggcatccgcc ctgcctggat	1200
ctcctcacct gccaggaact tcctctccac aagccggcca tcccagcaaa agttctaaca	1260

ccaaagatga ctgccagggg catgaagggg atgtgcttcc agggcatttg ctggcagggc 1320  
 gtctcgtgat ctcttggtat tgggtgtgagc acagcctggc aggagagggc agatctccat 1380  
 gcaaagtatg tcagaaagca gatggaagcc aggccccctc ctgaaagagg ctccttgaag 1440  
 ataattctaa catctttgtc atcagtgttg acatctcttg attgtatcct gtcattccat 1500  
 ttgagatctt cctggttctg gctggcatcc tctgacatca ctccagcaga agaaagggaa 1560  
 ggaacacgct gcattactgc gtggtcaciaa ggtccccgtc tgatctgcct tactccacc 1620  
 tttcagagtc ttatgtttgt tttgtgtata ttatcaaggg gttttaggtc acttagtcgg 1680  
 aagaataggg aaaagtatgt ctactccagc ttaatggaag tggaattctc ctgagaacct 1740  
 ttttttgata caaatatgt acttgtgcat attttgtatc aaaatatata atgtacatgt 1800  
 cccttttgta catgtatata aattgtatat aaatatitag gggtataaaa ataaccaaag 1860  
 acaccaaaaa ctgccacagg tggatttgag aagatgtgga aatgcctcac tgctaagaca 1920  
 tgctcattct tgacaggctg ggaaccctga atgctgtagt gtcaccactg ccctgtcctg 1980  
 tactaccta tcttttctact catttctctc aagctcaggt tttcagtttg gggatatgtc 2040  
 cacctaacag tgagctgtgg aactgcagca caatcatcaa attcaaaaaa ggcaaggaca 2100  
 tcttgctcag tttttaagat acgccataga tggagtaaac caaaccttt gattccagat 2160  
 ccttaaccct gattaaaaac aacacaaccc ttcatgttga tttaaaacat cccttgcaaa 2220  
 agatggtttg aatattccaa gttggaaata cccagtcttt taaagttaca gcaccctttt 2280  
 tgatacaaaa aatgtgcatg acagaaattg tacagtgagt agtgttataa aaataaccaa 2340  
 acacacc 2347

<210> 1328

<211> 2242

<212> DNA

<213> Homo sapiens

<400> 1328

gctctcttaa cgatatagct ctggcccaat taagctataa aatgtcacag gtagcagtgt 60  
 ccttagagaa cacctaagct gagaactccc tcatttttca gaggggggga tctgagggtc 120

agtgaggaga tctgttttgt ccagggtcat cagtgagtta ggggatgagc cgggacttga 180  
accctacagt ggaagaaatg tgagccacag aacttaccat gttgcttggt gacttcctct 240  
ggcacattcc actgtatttt ccccgaaagc tctccccagc ctctcagccc cactcctcgt 300  
ggctccactc cctattactc agaggtgttc agctccaccc actagtctcc cagcatggca 360  
gtttctgccc attacaggcc tacaatacct gcgagcctgt cagccccctg cctcccacct 420  
ctcaccaccc gccccgaaa tggttctgtt gttaccggac caatcagggc acccagcagc 480  
gtctagaact tggggctgat aatggcatcg tgaatagagg aaattagagc tgaatgcatt 540  
cacagtgaat attcctccca gggcagacgg ggccattcgc tgagtggcac atgacagatg 600  
ttcacatgga acccagtcgc agggccacct tcaactcctc caccagcacg gctgtctccc 660  
agccctggcc gtgctttaga gcactctgca tccccaaacc tggccctcca agccctgcag 720  
gagccagtgg ttctgcatgt ctctctagt acctctcaag cacatggcct tggccctgaa 780  
gagcgtagtg gttgatcgca cagcctttgg ggtagatgt atctgcttcc aagtcccaac 840  
cttctgcctc actgctgggc aggccgggca acatgcctga atctcagtgc ccccatctgt 900  
aaaatgggga taattaatac ccaccccaca gtggatcatgt gaattcaatg tgattatgag 960  
tgtaaagagt ttgtcccat gcctgggtata cagcagggtg tcaataaacg atggctatta 1020  
tgattatcga ttgctctctg tcacctgtgt atcctccaaa tgcattgactg gcctctgcaa 1080  
ttcatctgcc tcaaagttta cttctttgta accttcccag taccttgcat atattaggtg 1140  
caggattaag gtgttgtgat tgagatgatg gtgacgatga tgatgaagat gctgatgggg 1200  
atgcagagga gggggagaag attaggcaag aatgtaaaag ccctcatggg tcttagaaat 1260  
cacaagaggg caatttgttg cagcagaaat tgaatttcct ttggagttag acagatgtgc 1320  
tgaaatttac tgtcagcagc aggaaactca cacaccctgc cgggtccatg ccacattgtt 1380  
ctgtgtggct ggggaaagt acctcatctc tctgagtctg ggtctcagtc cctcatcttc 1440  
tccagggtg ttgttaggag tgaatgaagc catgctcaca aagtgttag cacagtactt 1500  
ggcctagtgg gtgttcgatt cacagtggat attgctgttg ctactcttgt cagtatatatt 1560  
ctgatctccc caacttacag atcaccactc cccttgagag cagagttgta cacttcattg 1620  
tgtatgcttc tggagggcag ggatggaaca tccattcatt tagtcaacaa ctgtggattg 1680  
agcagtgtct ctatgcctgc cactgtgctc agctctgacc acacagcagt gaacagaata 1740  
gatgagctct ctctgtctc atggagctca cagcccagtg gggaagacag atatataggc 1800  
aacaagtttt taattgcaag taaagggtgcc agccccaaaa aacaccaagt cacaggatac 1860

agaacaatgt gggatggacc gggcaggggtg tgtgagtttc ctgttgctgc tgtaacaaat 1920  
tatcacaaat tcagtggctt aaaactaata aaaatgggcc gggatgcagt gctcatgcct 1980  
gtaatcccag cactttgaga ggccgaggtg ggcggatcac ctgaggtcag gagttcgaga 2040  
ctagcctggc cgacatgggtg aaaccctgtc tctacaaaaa tagaaaaatt agccgggtgt 2100  
gactgcaggc acctatctgt agtcctggct gctccaagag gctgaggtgg gagaatggct 2160  
tcaaaccatg aggtggaggt tgcagtgagc cgagattgtg ccattgcact ccggcctggg 2220  
caacagagcg agactctgtc tc 2242

<210> 1329

<211> 2230

<212> DNA

<213> Homo sapiens

<400> 1329

tttgaacaaa ttttagactt acagaaaagt tgcaaaaata gcctagagaa tcctgcatgc 60  
ccttcgcctg gcctgctccc gaatggccac agtgtgggcg cgcagccgag gctccacgtc 120  
accaatgcga ccagtcagt accgcctgtc ccctctggac gcccttctcc agccatggtc 180  
ccccaggca ctcagcccc ggccccctctg cctttcctca gcttgccctt tggaagtgtg 240  
gccagcagtg ttttcagagt ccctcagcct gggtttgtcc cgtctttcct tgtgtggatg 300  
agggccctgc actgttggcg ggggcagcac tggacacacc cttccccagg cacagcccag 360  
gcctggccca catgcagctt cggtcacggg ggatgttgac acagcgcta gttggagcag 420  
cgtccacaga tttttcctta gaaagctcct gtcttctttt tatagtgagc agatgcctca 480  
gggagatacc ttgagactct ttgaacctta agcttggacc cactagtttt ggcatccatt 540  
ggtgaatatt ggctgcaata gttgttctgt gctgtttgcc taatagtgat tttctctctt 600  
tttttttttg agatggagtc tcgttctgtc gccaggtg gagtgacgtg gcgcgatctc 660  
ggctcactgc agtctccgcc tctcgggttc atgccattct cctgcctcag cctcccaatg 720  
tatctggggc tacgggtgcc cgcgaccatg cctggctaaa tttttgtatt ttttttcag 780  
tagagacggg gtttcactgt gttggccagg atggtcttga tctcttgacc tcgtgatctg 840

cctgccttgg cctcccaagg tgctgggatt acagacgtga gccacatgc ccggccctaa 900  
 tagtgatttt ctatttctct ctttcctttt taacttttta tttgaactaa cttcagactt 960  
 gtacgtgagt tgcagaaata gtcctagaag gggctctggac aggcaaatg ggggcctgaa 1020  
 gggggcagag agatttcttg ccaaggaagt tatggttacc aggcatagca gtatatgggg 1080  
 cagaggctgc agcaggagcc gggcgtgggtg gtagatgggg cagaggctgc agcaggagcc 1140  
 gggcgtggcg gtagatgggg cagaggctgc agcaggagct gggcgtggag gtagatgggg 1200  
 cagaggctgc agcaggagct gggcgtggag gtagatgggg cagaggctgc agcaggagct 1260  
 gggcatggag gtagatgggg cagaggctgc agcaggaaca ggcgtggagg tagatggggc 1320  
 agaggctgca gcaggagctg ggcgtggagg tagatggggc agaggctgct gcaggagccg 1380  
 ggcgtggagg tagatggggc agaggctgca gcaggaacag gcgtggaggt agatggggca 1440  
 gaggctgcag caggagctgc gcgtggaggt agatggggca gaggctgcag caggagctgg 1500  
 gcatggaggt agatggggca gaggcattga gtagatgctg gcaggagctg cagcaagagc 1560  
 cgggcgtgga gtagatggg gcaggagctg cagcaggaac aggcgtggca gtagatgggg 1620  
 ctgaggctgc agcaggaaca ggcgtggcag tagatggggc agaggctgca gcagaactgt 1680  
 gcaggaggga agtcactcac tcttactct cacgggcttc ccctggctgc tcagtagggt 1740  
 cctttggaag ctgctgagaa ctgcaaatgc ttagcccacc caggctccgt gtgacacagc 1800  
 caggagttag ctccacagct ctgtgtgggtg gacatccagc ctccctacc tgggaaagct 1860  
 gaaatgcaa gaaacacgtg ttttagtagc taattattgg cctttgagct tccaaaaccc 1920  
 cacattccgg caatctgtag agctcttcag gccaggcgca ttggctcatg cctgtaatcc 1980  
 cagcactttg ggaggctggg gcgggaggat cacttgagcc caggagttca agaccagcct 2040  
 gggcagcata gggagacccc gtctctacaa aaaataagaa attagctggg tatggtggct 2100  
 tgtcctgtc gtcccagcta ctcaggaggc tgaggcggga ggatcgcttg agcccgggag 2160  
 gaggaagctg cagttagccg acatcgcgcc actgcactcc agtctgggtg acagagggag 2220  
 accctgactc 2230

<210> 1330

<211> 2736

<212> DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 1330

actgaggctg	gggacaagtg	gccatttgag	aaccagacct	tcttcaaaag	tcttaaactg	60
gagtgagctg	aatgtttaag	aaaaacggga	gttttagaaa	tgacaaactc	tttcacccca	120
taaccacctaa	cacctgtggc	tctgacagct	ctttgcatct	ctacatcctc	tacctccatt	180
ggccagacca	ccaagaact	acttatttga	cttctgctcc	cttctgcttg	ctcacgcagc	240
attcattatc	attatcattc	tctctccctc	ttccactctt	cctccccgcg	ccttctgtca	300
cacacacaca	cacacacaca	cacacacacc	gtcttcacaa	tgcacataga	aacgtcctga	360
tcccatttgt	gtagatcacc	aaaaagggct	tcgccaccat	ccccgcacca	aatttcaaca	420
cacacgtcca	ctccctttct	gagacaaaac	aaccctcttc	ctctcctccc	tgtgccgacc	480
ccactggcta	gaagacgtgg	gaagcgcggg	gagggaggat	aagggctctg	aatgcttctg	540
tccccaccgg	ctcacgttc	cctcgcccc	gccccgacag	cattatcgcc	gccttccccg	600
tctttacctg	ccaacaggtt	cctaatttcc	tcagggaggg	ggtagggaga	ggaggtgctg	660
ctgggggttg	gcatgttagg	gagcgcaggg	cgtgcgggga	aaggacctgc	gctgaaaagg	720
tgaccgacgg	ggtggggctg	cggctgcgac	ctagactcag	gctagcggcc	cggattaaga	780
acagcggggc	tacgagtcgg	gacactgccg	ggccggggct	cacaacaagg	aagtcactga	840
atctccagcg	agctgcagct	ggactgtcgg	cccagccccg	cccagagggc	cggggcgggg	900
agatgggtgg	gaaggacac	gaagggcctg	aggggtccaa	ctgcgcatgt	gtattcctcg	960
gttttcccgg	ccccagaaga	aagagcctgt	gggcaagcca	cgcccaccgc	tacgccggga	1020
agcaggagga	ggagccactg	gtgggaaggg	ggcggactga	ggctgcgtca	cctgatgctg	1080
cgtcacctga	tccagcgtcc	ggagcgcctt	acagccattt	tcggtactgg	tgccatcaca	1140
actgctgac	gtttctgcag	gattccagaa	aataatgtat	ccatgataca	gagtgtatac	1200
aagttttgcg	attacgcctt	ctgcgtaaca	gtcagtccca	ccgcagtta	accacaagg	1260
aattttctct	tgtcctaaac	tattatggcc	ttctttgtcc	gattgaacgg	aggtaacgaa	1320
gtctcgtctt	ccgccagtgc	tccgggcgaa	gccagtctgg	agccgctccg	gagcgcgcgt	1380
tgtgattggc	tcttacatta	cttttctacc	taattcgtat	ccttgggggtg	acagattttc	1440
cccactacaa	ggaagactgg	gaagttctaa	gcaccgtcct	ttggcaggaa	aaaacaaaca	1500
aaacaaaaca	aaaaaacaga	aggccgaata	gacattggca	ccactgtcca	tctacaagca	1560

tcaaaaaataa aattgctggt ggtgggttagt agaataaaat tataaaatct gctcactcca 1620  
 acttgaccat ttagtcaaca aatacttact gtcttctatc tgtaaagctt cttaaaagtt 1680  
 ttctctttta aaaaaaatgg cttcttttaa acctttaaca ggcatacatc tttgtgcttc 1740  
 ccagatattg ctttttttaa caaattgaag gtttgtggca accctgcac aagcaaactc 1800  
 gtgggcgcca tttttccaaa agcatgtgct cagtccatgt ctctgtcaca ttttggtgat 1860  
 tctaacaata tttcaaactt tttcattatt attgtatatg ttatggtgat ctttgaagtt 1920  
 actattataa ttactttggg acatcacaaa cagcacccat ataagacagc gactgtaatc 1980  
 cataaatgtg tgtgttctga ctgctctacc aaccctatac ctctctccat atctctccct 2040  
 ctcttggggc tccccattcc ttgagacaca acaatattga cattaagcca attaataacc 2100  
 ctacgatggc ctctgagtgt tccagtaaaa gaatcatttt actttaaatc aaaagcttac 2160  
 tttaaataca aagctagaaa tgattaagct tagtgaggaa ggcatattga aagccgagac 2220  
 agacccaaaag ctagggctct tgcaccaaac agccaggtag tgaatgcaag ggaaaagtcc 2280  
 ttgaaggaaa gtaaaaatgc tactccagtg aacacacgaa tgataagaaa gcgaaggagg 2340  
 cttattgctg gtaaagaaac gttttcatgt tctggataga agatcaaacc agacataaca 2400  
 ttcccttaag ccaacgccta atcgagtgc aggccctaac tctcttcaag tctacgaagg 2460  
 ctgagaggta aagaagctgc agaagaaaag ttggaagtta gcagaggttg gttcatgatg 2520  
 tttaaggaaa taagccatct tcagagcata aaattgtaag gtgaagcagc aaatgctggt 2580  
 gaagcagctg cagcaagtta tcaaaaagat ctagctaagg ccaggtgcag tggctcatgc 2640  
 ctgtaatcct agcactttgg gaggatgagg cgggcggatc atgaggtcag gagatcgga 2700  
 ccacctggc taacacagtg aaaccccgtc tctact 2736

<210> 1331

<211> 3407

<212> DNA

<213> Homo sapiens

<400> 1331

aacaacgcgt ggctatgcga gcatggctct acctcctctt cggagccggc tgcggacgct 60

agggcctctc tccctcctcc acggaatggt tggctgtcag ggaagcacat gggcctccat 120  
atccccggcgg aataggtcag cttggttctc acgaaggaaa gggcctccca gcaggtgacc 180  
cagggttagcc agaacacca gctccctcct catccctgga gctggggaga cctctgagac 240  
ccagacatcc ccgtgtgggg agaagaggcc agtcggcttg gctgtggcca agtgggactg 300  
ggaccaggat aagatctcct gggctcaacc aagcgggctg agctgggctg gttcctgggc 360  
aggctgtgag ctgccccagg caggcccccg gccggctctg acccgggccc tgctgcccc 420  
tgctggaact gggcagacgc tgttgctgca ggctctggtg tacgacgcca taaagggcaa 480  
tgggaggaag aagtcacccc cagcctgcag gaaccagggtg gaggtgaag tcattgtcca 540  
ctctgacttt agtgcattca acgggaaccc tgacctccat ctccaagacc tggagcctga 600  
ggacccccctg cctccagagg ctctgatct catctcgggt gttggggatc cagggcaggg 660  
ggcagcctgg ctggacaggg agttgggagg gtgtgagctg gcagcccccg ggccagacag 720  
acttacctgc ttgccagagg cagccagtgc ttctgtctcc taccgggacc tccagccagg 780  
cgaggtgcta gaggagaccc ctggagatag ctgccagctc aaatccccct gccctctagg 840  
agccagccca ggcctgccc gatccccggt ctctcctct gcctagctct tcccagagga 900  
tgtggtttgg ggcaggcagg tatggatcac ataggatgcg atacctgtgg ccgtgtatgt 960  
ccacatgtgt gcctgtagat acatcatcaa gccctttgga gcttcctaag ttgctttggc 1020  
tgaggggaga ggaaaacatg gattattcac tcccccata ctctttgtga tacacatgtg 1080  
acatgtgaaa gacatacgag acatagctac atgtgatgtg cacatgtgtg aagtgcattg 1140  
atgcgtactg gttgttgagc tgggaaaccg tggccaggca gtggtcacta cagcctgatt 1200  
ggtcctccag gtcagaacgg tgccccacag tggtcagtcc ccagccctgt gggccccac 1260  
ctccatcgcc cagcctttta ttacacactc tgagagtgtc tccaatgcct gtctgacaaa 1320  
gacagtccca gccattctc ctgtctggct gggttgggtg caagcaggct ctgaatgcct 1380  
ggcatttcag ctgcatcacc tcccagctcc ttattgccc aatagagagg gtggccctgg 1440  
ctccccctcg agcaactctg catttaattt tgtaatctgg gaagtgcctg gttttgaaaa 1500  
tccgctttct ctactcttc cctccttcc ttgcccctgg ctgctctagt gttctgtctc 1560  
ccagtcacct cgctctccca gcaccagtgc ccttctcctg ctcccagata ctctttcctt 1620  
tcctctctcc tgttttcctt cctctgtat ctctcacacc tctcccagac tatgtcatct 1680  
tgttctcctg cctgggttca aactctgcat ccttctctaa caacgtgact acctcatgtc 1740  
tgcttcaagg cccccgtgcc ctctctgtat ccgcggtgc cgcgcactcg cctgccatcc 1800

tcctgcctcc tcttcactca gtgcttctgc ttgccctgcc ccaggcagcc caccacgccc 1860  
cagtgcgggt gtggagaaga tcttctggct tccctgcac ttccttttgg gattgggatc 1920  
caagggttct ccatggatgg atccaagtca tagaggggaa tgtttgagac aggggaagggg 1980  
actgtgatcc agaggctcag aataaaaaga tgccctccct tctatgcagg ggggcaagtt 2040  
tactggatgg agatgatttg ggcctctctt ccagaagaag ctaaaggaag agaaggggag 2100  
tgagagtcca gggaggccct tcccaccctg tgaggcttga ctgatctgg attggggatg 2160  
acaggaatct caccctctgg ggtgctggca aggaggctct tgcacaggaa aaggggtagc 2220  
tcatttcagt ttgttttttc tttaaattga atcctcaagt cattttctgt tcacctgccg 2280  
cacagggaca agcttgactt ctattttctg tgtagtgaac acaatgtcat ttatttggtt 2340  
tttcacctca gccctctcat aggagcatag aatgttaggg tctttactcc ctaatgatgt 2400  
ctgattggca catcaagagt taactctgcc ttctgggcca aattcgaaat aaccagtcca 2460  
tttttccttt tttttttttt tttttttaaa tgggtggaatg tctctcagca cagttgcggc 2520  
ttcctcaaac cctgaaagca tctgtgttta ttatactcgg gtgtcactca ctgttgatgt 2580  
ctgcacctac gtttccacct cctccccctc cttcagccag cctatgataa cactaaagat 2640  
tattaatgtt ggttttgtat ctcgttaaag acagaattgt cacttgtagt atttctgtag 2700  
cattcagcgc tgctgtggct aacaccactg tgtatgtttc atcattgctc tgaagggtcaa 2760  
aagcctcatt ttattttgct ggtttgattt ttttttttta aagaagaaaa aaaaactgcc 2820  
ctgaattaaa tggctgtttt aacagtaggc tcttagcatt ataccacata gtcatttttc 2880  
atgttcttgt ttaacaggca ctgaggttct ggtttaaatt aaatagctgc aaatgagaca 2940  
atttataacc cattaggttg ggtggaaaaat tgtttctcaa aagcaaataa gtaataaatc 3000  
tggtatctgc ctataactca cagttgataa gaaagtggcc atttctcact agcactatat 3060  
atgatttggg ctctgggtaa tttggaagtg ttaggtttgt gtctttgtag cagtattttt 3120  
attagaaaag aatctatttg ctttttacag ggtattaatc cttttgtcac ctaccattga 3180  
tgccttaagt tttctgagtc tcaattaaaa atcttccttt tcttgatgca tgacaagtgt 3240  
aatcagtact tgctcattta tttgtctgta tttagtttat gctgtactat ttaattatcc 3300  
ttccagcgtt ttttttttct ctttacaagt atgatactct ttagtggtta gctaaggcat 3360  
tgattcatgt atctgtcctt ataatgaatt aataaactat tttccag 3407

&lt;210&gt; 1332

&lt;211&gt; 2297

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 1332

gttttacaag	ataactgcc	gacttttttc	caaagtgggt	gtgccatttt	atactctcac	60
caccaacaaa	tgagaattct	ggttattcca	caccttcaac	aacatttggg	gtatttcacc	120
tggtttataa	tttgcatctt	tttgatgact	aatgaaagac	atcttgatct	atatgtattt	180
gatgtttatt	tatcttccat	tgtgaagtgt	ctgtttaaat	cttttgacca	cattttaata	240
gggcaacttt	tctttttatt	attgaattat	agtcctttat	ctattctgaa	tacaattcct	300
tcatcagata	tgcgttctgt	gaatattttt	tcccaggctg	cagcctgcct	attcattttt	360
ctactgggtg	atcttgatga	gttttaaaac	tcaatgcagt	acaatttatc	attttaatgg	420
gtatgtattt	ctgtttccta	tgtgaagaa	ctttgcctgc	ccctcaaata	gtgaagatag	480
cttattttct	tctagaagat	tgtatgtttt	atgttttact	tttaaattta	taattcattt	540
tgtgtgtgtg	tgtatgtatg	tgtgtgtggg	atgaggcagg	agtcaaggct	aaggatattt	600
cgttgtctag	cacatttttg	ttgaaaactc	ttttctttct	ttattagatt	gctctgatgc	660
ttttgttgaa	aattaaatta	tatgtgtgat	tctattttcta	gactcttttc	tgatctattg	720
atttatttat	ctatcctaca	ccagtaccat	actaatgaat	atagctttta	aataagtttt	780
aaaatcaaac	aagttctctt	tgtttttctt	tcaagattac	tttaaacatt	ttagattctc	840
tgtattttca	tataaatttt	agaatcagat	tgtcaattcc	tacaaagaaa	acctgttgaa	900
attataattg	ggattgtaat	aaatcttttag	atcaatttta	gataactgac	atcttaaaac	960
gttgatcctt	ccaaccata	aacaaggat	gtctcttcac	agatttagat	ctttcaaaat	1020
ttttctcagc	aaggttttgt	agtcttcagt	gcacaagtca	tacacatgtt	tttaaaattt	1080
attcctaagt	atcttatgtt	tctgtaaaaa	gaatttttaa	aaatttcatt	ttctgattgc	1140
tactagtaga	tacaaatatc	attaattttt	gtggattgac	cttgatcctt	gcaatcttac	1200
taagctcact	tgttggttct	agtagctatt	tatttttact	tatttttatt	tatttttgag	1260
acgaaatctc	actcttgctc	cccaggctgg	agtgcagggg	cacgatctca	gctcaccaca	1320
accttcgcct	cccaggttca	agcaatcctc	cttcctcagc	ccccaagaag	ctgggattac	1380

aggcatgtgc caccatgccca ggctaatttt atattttag tagagatggg gtttctccat 1440  
 gtgggtcagg ctggccttga actcttgacc tcagggtgac taccgcctt ggcctcccaa 1500  
 agtactggga tttcaggagt gagccaccgc acctggccgc tcttttttta ttccttaggt 1560  
 ttttatatgt aaacatttta tgtctcaact gagatttccc tctttttttt tccttccaat 1620  
 tgggtattctt ttttaaaaaa attttatttc attggctcca atctccagta caatgatgaa 1680  
 tagaagcagt gagagacagc attgttgctt tgttcccaat cttagagaga aatcactcag 1740  
 tatttcacca ttatgtgtga tattagtgtg agattttttt atgggcactc ttcacttcat 1800  
 cagcttgaaa ggtacacttt tatttccaat ttgcagaaaa gaaaatcaca agtggcgctg 1860  
 aatttgtcat atgacttttt tgatccattg ggatgatcat gctgattttc tccctcattc 1920  
 accattaata tagtgaatta ctttgataga ttattttgaa agttaaatta accttccatt 1980  
 cctgggataa atctgactta gccaaaacat attatttttc tggtaaagat tttttgtcta 2040  
 cattcatgag gactatttgt ctgtaatttt tttctcataa tgtctttatc agatttttgt 2100  
 atagctgcat aaactgaatt aagaagcatt ctttttctgt tttctgcaat agttcataaa 2160  
 agattgggtg tactttttcc ctgaaatgtt gatataattc accagtgaaa taatctgggc 2220  
 ctagagtttt ctttgtggaa atgtttttga tgacaagttc aatttcttta ataaataaat 2280  
 gactacttag atttctg 2297

<210> 1333

<211> 2158

<212> DNA

<213> Homo sapiens

<400> 1333

agatgcacgt gagccgccgc tccgcggagc gtgggagagg gctctccctg gaaactccac 60  
 agagttggag tcggaagaga tcaacgaggt ttaaactcgg aggcattgca cgatacaaag 120  
 gggatttgga gcgctagggg aggtgaccct aaagaacggg actatctggg tgcaaagtga 180  
 cggcagatca actcacctgc ctggtgaaga ggatggcagt gtcccagtac tcggggtgct 240  
 tgtcactcac tttgttcagc ttcttctgcc aggcacagaa gttgcgcagc gtcagggccg 300

cattgccggt gaccttgggc ccggagtcac gatctctaag aagcagcacc ttgaccacaa 360  
cgatgttgat ggggttgagg atgctgggat ggcggtagag tcgcgccgcc gttgccagca 420  
gcgtcagcag ataatgttcc aggtccgcgc cgtggaactt gaccattgac tcgtccgcga 480  
ccaccagcgt ctccacgtac cgcgggatag acacgaaacg cttggcgcgc ccagacctgc 540  
gccggctacg actctccccg aagcccgccc gccgcggctt gtaagggtcc agggcccgtg 600  
ggatggcggg gttccagccc gaggccaccc cgcagcgaga ggtggggtct ccggaaggcc 660  
cgcccggaac accccggcgc tggagaaggt gtgcgccctg gctgttgccg tcgccgccg 720  
gcgcgctagc attgggcagc gggctaata gaatactcggc gcctcggtag ccaaaggctc 780  
cgcggagccc ccgcacagg ctacacagc cgaacgagtc cggctcggcg ttcacgtccc 840  
cagaatagaa gcagcgtcgc aggtctgaag agccccggg gagcccctgg agggggacgc 900  
ccagatgctc agtggagaag gcgggagcca agaactgagc atccggcgtc aggtgtaggt 960  
aaaagtccct ctgaaatgct gtgatctgaa aaatgagtc ctgatccccg gagtccctcg 1020  
gaccccgcca gtagtagcgg cggccgttaa tgtccgggtc cagtcggatg ggaacgacta 1080  
cctcccgtc tggtcagag cctccagcgg ttcgcccggc gaaagccagg gttaggatgc 1140  
ccagcagaag catggcgccg ggcagcgcac cgccgcgctg tgggaagggg ctgggcccgg 1200  
ctctccggcc gctgccgcgg tctccgtgca gcccgcactc tggaaccgcc aacgctacgg 1260  
gacagccggc agttcccaga aaggagagcc aaggagggga gactcctccc agggcggcga 1320  
gcgtgcacc ggcagcccgc gcttctacc tgtgccttc caagcaaagc gcgccctggg 1380  
agcttaagta caatcgctgt caagtgaag gacgaagatt tgcagccgag aactagcgga 1440  
aggtgccggg cggttctcg caaccgcagc cactcgcagc gcagcaagcc aggcgctggg 1500  
cgagcctatt aaaggcccc tctcttttg acggcccagt cagcgcccct cccctcactc 1560  
ccctcccagc ctcccagagc tcgtgccgg agcctccagg ggccaccgga gaactcggtc 1620  
ccgcctccag agcggagagc cacttggcgg ggagggaatg gcattgagct gaggcaggag 1680  
gcgtgggctg gcccagaaaa ccggcgctga agtctcagtt tgcgttttgc tcttggttat 1740  
gccccactgt cccgacgcct cactcgcttc tgcccccgcg gacagcgctt actctctggg 1800  
tcttagtctt ttatctcagg gcagatcagg tcagcagcta ggaatgaaga cccttactg 1860  
accgtcccc agggccacct catccctgct gttgcaacat ccctgctgtt tcttaatcac 1920  
agagtccct aaaagacca gaatcaagaa ccaccccc cccccgcgt aaatgtccta 1980  
ttgccagaag agcaatagga caggggcatg ggagccctct ggaaccaag accgcctagc 2040

cccaaggctt gccctgggcc catggtgtgc tggatgggct ggggcaaact cttcagttct 2100  
caggaatctt gccagccagt tgttaatcac ggacattatt aaaaattaaa ctaaacac 2158

<210> 1334

<211> 2121

<212> DNA

<213> Homo sapiens

<400> 1334

atgaaaaagt caaacaagg tatatttctt aaaagaaaat tatataggac tgcttatagc 60  
ctcttgagaa atttgaaaaa cctaggggtc agagaaaagg aggaaaaaca attcagtggc 120  
gggaaacgtc agtccttttag gagaagctga aggaactgga gctgtttggt ctcaaggatc 180  
catgtgttat cgctgagtgt tggccggaga gtttatggag caagtttttg tttgcacaaa 240  
ggcctaaaag agacagaaag gggcatacat tgctcttcaa caaagtttgc atgaaaattt 300  
caagaaacga tgcagtgtcg aggaccccc a ggcacgcggt ggagtcgcct cctccagaga 360  
gttttcaaaa cagagcagct ttttaggtct gtagcctgaa cccagctgg ggagccgagg 420  
tctcttcag ctccttcagt gctctgagaa ttgtcttctc gtcccagcaa caggcttgcc 480  
tcgtgggctg cagagcggcc aggccaccct tagaaccatc gttggtgttt tccaggcaat 540  
cgtgaaggaa catcctccat cagaaacaga agagaagaac aaaatcactg ctgcgatctt 600  
ttattccatc agcttgacct agcagggact ccaaggggtg gagctgggaa cattcctcat 660  
aaagcgagtc gtcaaggagt tgcaggtaag cgacacgcag ggagccccgg tcacgcttgg 720  
cttccgtgtg gtcaggtcag cgaacctcgt ggggtgtcag gtgccatgag ggacacagat 780  
gaagacagga gctaaaggga ggggcagggg gtagaaaagg tgccagagac cccttggtcaa 840  
ctcctaggag ccatgagtct cccagagaga tgagaatgat gctgagagag gcctccaacc 900  
cagctgcccc gttgactgca agacgcagtt gtattctgag gtcacact ctctctaggg 960  
tgacctcgtt ctgacctggt caggacactc tggatttcac gtgtcatcct ggtgtaagt 1020  
tcactctgaa atgtcccagc cagatggcac agctggtagt catcctgcca cgcctgtcct 1080  
ccccctgccc ctgcccacac tctcagggcc tctgacacct gatgtgctgt tagcttgggc 1140

ctctcatgg cctgtgaggg agtgctgagg tgagaccaga cagctcgaag gtaaatgcat 1200  
 cggcttttaa tctaactctc ctctctttgc tgccctgtga aaaacatatt aaccatccta 1260  
 catcagaaat gttgatgttc actccaggcc taggctttca aaaaccacca gcctcatcag 1320  
 ggacttggat aaattccaat gagtagaatc taataattag gtgcggtagc tagatgtttg 1380  
 ctaatgactg gctctgagca ggggtgttcac tgtgttgggg gctgcacatg gctgcagcag 1440  
 aggccttcct ttgaggacga cagtgtggag tggggacgtt tacatgctcc tagtaaattc 1500  
 ataataaatt tctaattgaa gccctcagga ttcagctggg cgtgggcttc attaccacgc 1560  
 cgccatgttt cccccgggta acaatgagcc gtagctcatt cccacagttt cctcattcct 1620  
 ctgtcttcac tgagggtggg gattagcagg acggggtggg gaaatgtatc agggttaagga 1680  
 aggcaggaag aggaggagca gatcccggga ttcgggggag ttgggcctta gccagcagc 1740  
 tgtcctgagg gtgtcgctta actgcccctg ggcgccagc ctagaagtcc tcaaaggag 1800  
 tctggaaggg acaaatggc ccctctgctg ggaggcgctc gtcagggttt acaaaagcaa 1860  
 aacacagctg ggcgagtggt ctcacgcctg taatcccagc cgaggcaggc agatcacctg 1920  
 gggtcaggag ttcgagacta gcctggcgaa cgtgggtgaaa cccgtctct actaaaaata 1980  
 taaaaattag gcatggtggg gcatgcctgt agtcccagct actcgggagg ccgaggcagg 2040  
 agaatacatt gaacctagga ggcggagatt gcagtgagcc aagactgcac cattgcgctc 2100  
 cagcctggga gagacagtct c 2121

<210> 1335

<211> 2108

<212> DNA

<213> Homo sapiens

<400> 1335

ctgggcctca cgaagcagca tcggaggtgc ctcagccatg gcatggatcc ctctcttcct 60  
 cggcctcctt gcttactgca caggatcggt ggctcctac gatctgattc agacaccctc 120  
 gttgtccgtg tccccgggac tgacagccac catcacctgc tctggagaca gactggggtc 180  
 tagatttggt tcctggtatc aacagaggtc aggccagtct cctgtagtgg tcctctttca 240

agacaacaag cggccctcag ggatccctga gcgcttctct ggctccaact ctggggacac 300  
agccacttta aatatcaccg gtgcccagac tttggatgag gctcattatt actgtcaagt 360  
gtgggacgcc gacactggtg tgattttcgg cggaggggacc aaactgaccg tcctaggtga 420  
gactctctgc gtcactctct tttttgtctg tcctctatca aatgaagatc agtctttttc 480  
cctccattcc aggcctgacc gaggccctct gtcctccctg ctcagaccgt caattggctc 540  
accacgtcgt cacaccact ctatgactga caccagggtc agggggcaag atggagtggc 600  
ttactgagcc ccatttgtct gtctgtctgt ctcctgtct gtctgtccag ttttctcttt 660  
gtatatcatt ctctctgaca ggcgctgact ggggtctctaa gtcttgttct gttcagattt 720  
tttactctg aattcttgtc gggccagctt tgtccttggg tcgcctgggt tacatctct 780  
ggggaattga gagaaagggg tccgaggggg ggcacctccc gggagacttt gcaagggccc 840  
agtgccctcg ggagtgatgt ccgggactca cagacctggg acccagaggc agcatccaga 900  
cgcagattga ggtagtggtg ggggggctgc cctgggcgtc tgggggctgc cagggactga 960  
gccctgaggc agcctgagac tcaggaaacc ccctccggag cgagagggaa aagcagactc 1020  
tggacaccag aaagccaggg aaggggtcag aaaaggagtg gatgtgacag aagggcggac 1080  
tcctgagtct cttcagagtg tctccctgt gtccaggggg atcagagggg cagagtccac 1140  
cgcgtgaaag cccactgct atgaccaggt agccgggacg tgggggtggct gccagaagag 1200  
cctccacaga cttagagaga gccaggaca acaggcaggc tccccgatcc cccccgccc 1260  
ttgccccgtg cacgggctcc cgaacacaca tttgccttga acagcctgag ggacaaaaag 1320  
gccccagtat cccacagagg tgaggagcca ggccagagaa gtaaccccag agttcgctgt 1380  
gccagggtca gggcgctgag ggtcagatgt cggtgttggg ggccaaggcc ccgagagatc 1440  
tcaggacagg tggtcaggtg tctaaggtta cacagctccc cgtgcagatc aggacatagt 1500  
ggaaaacacc ctgaccctc tgcctggcat agaccttcag acacagagcc cctgaacaag 1560  
ggcaccccaa cacctcatca tatactgagg tcaggggctc cccaggtgga caccaggact 1620  
ctgccccct gccctcatc caccgcgag gtcagcccaa ggctgcccc tcggtcactc 1680  
tgttcccgcc ctctctgag gagcttcaag ccaacaaggc cacactggtg tgtctcataa 1740  
gtgacttcta cccgggagcc gtgacagtgg cctggaaggc agatagcagc cccgtcaagg 1800  
cgggagtgga gaccaccaca cctccaaac aaagcaacaa caagtacgcg gccagcagct 1860  
atctgagcct gacgcctgag cagtggaagt cccacagaag ctacagctgc caggtcacgc 1920  
atgaaggggag caccgtggag aagacagtgg cccctacaga atgttcatag gttctaaacc 1980

ctcaccccc ccacgggaga ctagagctgc aggatcccag gggaggggtc tctcctccca 2040  
 cccaaggca tcaagccctt ctccctgcac tcaatcaacc ctcaataaat attctcattg 2100  
 tcaatcag 2108

<210> 1336

<211> 1896

<212> DNA

<213> Homo sapiens

<400> 1336

attcgcgtgg aggcgcgtcg cgcgcagcgg acgccgacag aatccccgag gcgcctggcg 60  
 cgggcgcggg cgcaaggcg atccgggcgc cccccgcgg tcatcgggtca ccggtcgctc 120  
 tcaggaacag caggtgaggt ctccgcggcc cggtttcgcg ccgtaggggtc gccgcgctcc 180  
 tcgtcggccg ggggcggggt tggagaaggc gggcagagag gccggaaaac gcaggcgcca 240  
 gctcgcgcc aggtccgggc caggttcagc tgggatgcgt gagccgatgg aggctcccct 300  
 ggcattctggg agtgagtgtc cagagaatag cttccctagt tgaccacga gccatgtctg 360  
 tgcccacgaa tgtgggagcc tgaggccatg ggggggtcccc gagagagaga ggggtgtctgg 420  
 gcacttgccc atgaacggac cactgcatgc ctgagagaga agggccctga caccaggaac 480  
 ttgtgtggac tcagggcgag tggccacctg gaaggacact tctcagccag tgtgcccact 540  
 gggaggggga cagcgtgtcc cttgctggct cgagtccaca gggcaccagc tgctttgggc 600  
 acaggggagc tggttctggg gctgctctac tccatggggg ccacggtgag gatgagacca 660  
 ggccaggttc cttggttggg ccctgggccc tatgccaggt tggctctgag ttggatgcgc 720  
 actgccagcc aggatataac caacaatgtc ccagattcc cgtgccacct ggggccaggc 780  
 aaaatagggtt aaaatccact ggcagaccca tttgtaagt ctccgagtgc accgtcaagg 840  
 tgggagcttg ggaatgggcg acctcacctg ccgcacctgg acttgccagc acaggtctct 900  
 tctcaccttg ccagtctcg gcttccttcc ctctcgccc ccctggctac gcaggcctgg 960  
 aaacagctcc ttagggatcc cagctgaaca gctcctgggc ttgggctata cctcccagtg 1020  
 ggagggtctg gcctggggtc tgagggccag ggggtggtgtg gtgggcgggg tgtgcctaac 1080

atccaagaat ctactccaaa taagggaataa tatgaaagag ctggattttg gcttcccagg 1140  
 actgccccgat ctggtggctt tgggatcggg cgacatctgg cggttgatac tatgttctag 1200  
 ggacaagaac cctctacacg cccattcctt gtttcctcta aatagggaaa agctagggct 1260  
 ggaagacacg gcacccacct cctgacactc tttctgctgg aattgaccac tggtcactct 1320  
 gactcagttt ccctgagctc tgaagattaa ggaatgaacc cagacaaccc agctcaatgg 1380  
 cccttagtgg agagagagtc aattattgat ggaattccgt gcctgggaac ttgctttcca 1440  
 gtggggcagg gggaccagaa ggacaacttc aagcccgtct tgaatggggc ccgtgcaggg 1500  
 aggggtctgt atgggttccc ctttcccagc cctccctccc acctccacc cagctcccag 1560  
 acggccaggc gcacttggtg cagggtgtgtc tcaaagtggc caggagaggg gacaatatac 1620  
 aggggttggc ctgagtactg gaaaatgcca tttgcacccc ctaacaccac tactagtggg 1680  
 aaaaaccagt ggggcctcag gctgccccga agtgaatgtg ctgggcggat cacagcccca 1740  
 ccacgtgtca tgtagacacc cagggtctaca ggagagtcaa ccatatttgg gcatgacgtg 1800  
 ctggccaacc cagggcctcc atctctcact ggtctttagc agataaatta attattacta 1860  
 gaattgaaca ggaggacag atacctgcct tcctag 1896

<210> 1337

<211> 1499

<212> DNA

<213> Homo sapiens

<400> 1337

ggtgtgccag gccggggcca agtcggaggc ccctcgctct ggggtgggcgc tggggcccgc 60  
 gagggctact gtaaggacct ctggcttctg aggatactgc gtctagaact ttctccgtat 120  
 ggggtgccgag gcgtcctcct cttggtgccc tggcactgct cttcccgaag aacgcctttc 180  
 agttaaacgg gcgtcggaaa tctcgggctt cctggggcag ggatcgtcgg gagaggccgc 240  
 tctggacgtg ttgacacacg tgctggaggg ggcaggaaac aagctcacat cttcctgtgg 300  
 gaaaccttct agcaacagga tgagtctgca gtggactgca gttgccacct tcctctatgc 360  
 ggaggtcttt gttgtgttgc ttctctgcat tcccttcatt tctcctaaaa gatggcagaa 420

gattttcaag tcccggctgg tggagttgtt agtgtcctat ggcaacacct tctttgtggt 480  
 tctcattgtc atccttgtgc tgttggtcat cgatgccgtg cgcgaaattc ggaagtatga 540  
 tgatgtgacg gaaaaggtga acctccagaa caatcccggg gccatggagc acttccacat 600  
 gaagcttttc cgtgcccaga ggaatctcta cattgctggc ttttccttgc tgctgtcctt 660  
 cctgcttaga cgcctggtga ctctcatttc gcagcaggcc acgctgctgg cctccaatga 720  
 agcctttaa aagcaggcgg agagtgttag tgaggcggcc aagaagtaca tggaggagaa 780  
 tgaccagctc aagaaggag ctgctgttga cggaggcaag ttggatgtcg ggaatgtga 840  
 ggtgaagttg gaggaagaga acaggagcct gaaggctgac ctgcagaagc taaaggacga 900  
 gctggccagc actaagcaaa aactagagaa agctgaaaac caggttctgg ccatgcggaa 960  
 gcagtctgag ggcctcacca aggagtacga ccgcttgctg gaggagcacg caaagctgca 1020  
 ggctgcagta gatggtccca tggacaagaa ggaagagtaa gggcctcctt cctcccctgc 1080  
 ctgcagctgg cttccacctg gcacgtgcct gctgcttcct gagagcccgg cctctccctc 1140  
 cagtacttct gtttgtgccc ttctgcttcc cccattccct tccacagctc atagctcgtc 1200  
 atctcggccc ttgtccacac tctccaagca cattacaggg gacctgattg ctacacgttc 1260  
 agaatgcgtt tgctgtcatc ctgcttggcc tggccaggcc tggcacagcc ttggcttcca 1320  
 cgcctgagcg tggagagcac gagttagttg tagtccggct tgcggtgggg ctgacttcct 1380  
 gttggtttga gccccttttt gttttgccct ctgggtgttt tcttttgtcc cgcaggaggg 1440  
 tgggtggagc aggtggactg gagtttctct tgagggcaat aaaagttgtc atggtgtgt 1499

<210> 1338

<211> 3488

<212> DNA

<213> Homo sapiens

<400> 1338

agtgcggagg aggcgcggca ggggacgggg ctgttgttgc agggcggccc agacaggacg 60  
 ccctgtctcc tttctctcct acaaccgctt tttaaaagtc tgtttctgtt tttagcagcg 120  
 gctgccggcc tcgtcgtcct ccacctacgg ggatgacctg gcttctgtgg ccccggggcc 180

tttacagcag gacgtgaagc tgaatggagc cggccttgag gtggaggact cagaccctga 240  
gcctgaaggg gaggcggagg acaggtaaca gctgggcccc cccagagat aagagacata 300  
ggctcaatat ctccccacct ccctccccta ccaacctccc ccgacgacct gccccgactc 360  
ctccgccccg ccccgacccc ccaactggcag tgggagtgac tcagggtcag aggctcagag 420  
ttcctgggga caaagtggga cattcatcct ccctccaccc tggcccacgc aacaccacc 480  
agcgaacagc tgtgcgcggg cgcacgcgcg cgtgtgtgtg tgtgtgtgtg tgtgtgcgtg 540  
cgcgcgcgcg cgcgcatacg ggtcaaggat cccttatccg aaatgctggg gggaccagca 600  
gtgtttcgga ttccagattt ttccacattt cagaatgctt gcattatata gttagctaag 660  
gttcagcatc cctaatactaa aaatctgaaa tgcccaaatg agcattgcct ttgagcacgt 720  
caagtcgctg ctcaaaaaga cttggatttt ggaacatttc agatttagga tttttggact 780  
agggaagttt tgcctgtagt taacagtgtg cggtttcctc atgggcagat ttgtgtaatc 840  
tcaaccatag tcaacaaaca gcccatctgc acaggatcct tccagctgct cttccataac 900  
ttcatctctc ccctcaacac ctgcaaccac taagccattt tccccctacc cgtctgtaat 960  
tttgttattt tgagaatgcc aggtaaatgg aatcagagcg gataatcttt ggagcatgat 1020  
tcccttgcat tcacctgtgt tgtttcgtgt atccatagtt tattcttttt ttaatctggg 1080  
ctcactgcaa tctccgcctc ctgggttcaa gcgattctcc tgtctcagcc tccccagaag 1140  
ctgggattac agggggccgc caccatgccc ggctaatttt ttttgtattt ttagtagagg 1200  
tggggtttca ccatgtttggc caggctggtc ttgaactctt gacctcaggt gatccaccgc 1260  
cgttggcctc ccaaagcgct ggtattgcag gcatgagcca ccatgccagg cctattcttt 1320  
tatttttcaa acgaggtctc actgtgttgc ccaggctgga gtgtagtggc gtggatcatg 1380  
ctcactgcag ccttgacctc ctgagctcaa gtgatcctct tgcctcagcc tctgagtag 1440  
ctgggaccac aggcacacac taccaccacg cccagctagt gtgtgtgtgt gtgtgtgtgt 1500  
gtgtgtgtgt gtgtgtgtgt ttagagatg gggctctctg atgttgcca agctggagtg 1560  
ccatggctgt tcatagacat gatcattgtg cactgcagcc tcaaattcct gggctcaagt 1620  
gatcctcca tctcagtctc ccaaagcttt gggattacag gcgtgagcca ctgtgcccgg 1680  
cctggagttt gttcttttgt attgctgggt agtgtgctat gggtagcttt tcgatttggg 1740  
tggtggtctg acacaagcta ctcccctctt accgcacatg gacaccaga gcccatcact 1800  
gtggtccact ggaaggggaa aggaggcaga gttgtacagt gccaggcctg ggccatgtgt 1860  
ccccatcca gttgggggtt tgccatctaa atgaggaggt ggcagctggc ctgagccccg 1920

tggagtggg ttcaggaaag ggggtgtgggg tcccatcccg aagtcctggc ggccccatag 1980  
gaatctttct cctctcctgg ccagtcagag cggtttctct tcctaacggc tgccctgctg 2040  
agagcaggac gacaccatct ggctgcatcc tgtccctatc agcctgtgac tctgtatgg 2100  
gggtgggcag acctcagccc aggtgacacc tgcctctaaa tgaacccaag gaacagaatg 2160  
acagagatct gcccgtccct aggatgagac tcttgggacc caggtgtggg ctcagcagtc 2220  
accggtgtgg tgcagggggg acagctggag gtcccttggg agatcccca ccttcctagc 2280  
tacagctgga gctccaagca cccaacccc ccagccttgg agctgggcat catcttcctg 2340  
gggccacggc agtcccaca gcctgacatt ctgttcccgg gagaagaaac attcccagaa 2400  
agcactcgtg tggccaaaag cctctttctg agcaaacacg atgtggacta aattagcaaa 2460  
acatccagcc ggtgggcaac ttcaaaacgg aacaggctgc gtttctctga aacacaaagc 2520  
cccgccctcc ctttggggca ccaggaccc caaattgccc taagactgtc ccagctctcg 2580  
caccctctgc cttcgcccc cggggacctc gggctcacat cacaaggccc tgcggggaag 2640  
cagatggctc tcagcaaatg cactttcagc ttccggctgc cggggctggg tgaccccggt 2700  
gcttcctcac cgtgagttcc tgatgtcctc gtgcccagag gaccagcca ctcccagggc 2760  
ccccaggccc agaacctgcc tgccttgggg ggccctacca gctgcctgcc accagtacca 2820  
gcagactttg attccccctt gtgaccctg gcacctgctt atgtctgcat ttgccatct 2880  
tctccgggggt ggtattttatt tcagccaaca ccgtcagcc ctgatctctg ccagcacgga 2940  
ggcccctcgc tgcctgtgag atcaaggctc gaggtgccc tggccggtgg gttccccacc 3000  
cctggcacc tacaagcgac aggcctgtg gtccttcct cagcccagg ccccggtgcc 3060  
acttgctgta gaggatgttg taagataaaa cctcatctcc agggtcacag ccgggcctcg 3120  
gcctcctgtg agcagcggga acctggaaag cagcaccag agcgccagcc cgttcacag 3180  
atggggccag actccggccc ctcagagaca tagtggccgg gtggtggggg ccacaggcc 3240  
agggttctg agccctgtct tcgtctacag ccagccttt cagagtgggtg gggaggaggg 3300  
tttatggatg tcaaacacct gcacctgag ataatcctac aaccacatgc agttgtggga 3360  
ccgcagtttg gtcctgggga ccattcatac ccacacacc agcttgtgcc tgtggttaac 3420  
atctcagaaa actctggtaa atgatcactc caggatattg acaagaatac acgttactga 3480  
tcttactc 3488

&lt;210&gt; 1339

&lt;211&gt; 2283

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 1339

```
atgtatatat atgtgtatat atatatatat atagcatagg caacttaaac catgccagag 60
ggaattgaaa atagggacct acaggagaaa caagaaagaa tgaatactag ttggctctac 120
tcaataggaa gaccaggga gaagttggaa ttaactcaga tttccagcct gggtgactct 180
gaatggctgt gaatggcagt gttcttatta acagggattg agaaggcaca taggaataga 240
acagcattac ccttggacag tgaatttaag gtgttgacct ttggacatct gccatgtctt 300
gtcacttttc gatatgggtc tggccctcag gcaatagcag agatttgaat ggagctgtag 360
agtcacaagt catctttata gacatgttag ttgaagccat acgcatagat gagctcatct 420
gggagatgaa tttaaatcaa agagatcaaa atttccttgt ttcacttaac taatcttctt 480
agccatttac tcttattgtg agcctggctt ttccacctga ccaagttctt cttgttccag 540
gaattcaaag ataaagaaac caggctctat tatttctttc tgattgattg atatttggtt 600
tctaaaagaa attttcttcc ttctctacat tcacaaactc ttctattctt ttgccacatt 660
ttatacactt aagtttaaac cagtttccat gtatatattg tctatattat gtttgttatt 720
gagaaatagg catttttggg aagaaagaat ttggcatttt ggaaataatc agaaaattaa 780
aaaatgcaca caccactttc ccattcttct cccaccccca acccctaccc ctatcctcaa 840
atgcttagct agtgaaatat taaaatgttg taatagaaat tggagtcaag gtctccttgc 900
tgaagagacc atctattttc agagactgga aggagagaga acaaaccaat caagagtcac 960
tggtttgttg cctctattgt tttatttctg acctgcgcaa atagcttttg aagtggagat 1020
atgctagttc ttggcaacta atacttttct gggcatgcat tttatgaaat aataggtatg 1080
tatctgcctc attcttttag gctatgtgtt tctctagttt aaaaataatt tgccaatgaa 1140
ggctctatctg tatttatgca atccctaaat ttgtatttac cttatgtgcg tatgttttaa 1200
atgtgtgtat ggaggcttat tttggatgct gtagatggga gagagtgcca tcatctagta 1260
cactgttata tgccacaaga aataattgca cagccatttc ttaattttaa ggtttttctt 1320
ttcaacaggt tttgactga ttgcaaaaat aaagtcctcc gagcatacaa tatccttatt 1380
```

ggtgaacttg actgcagcaa agaaaagggc tactgtgctg cactttatga aggcttgcgg 1440  
 tgctgtccac atgaacgaca catacatgtt tgctgtgaaa cagacttcat tgcacatctt 1500  
 ttgggtcgtg ctgagccaga gttcgcagga gggcgaagag aaaggcatgc aaagacaata 1560  
 gatatagctc aagaagaagt tctgacctgc ttgggaattc atctttatga aagactgcat 1620  
 cgaatctggc agaagctacg ggcagaagag cagacatggc agatgctttt ctatcttggg 1680  
 gttgatgctt tacgcaagag ttttgagatg accgtggaaa aagtacaggg tattagcaga 1740  
 ttggaacaac tttgtgagga attttcagaa gaggaacgag taagagaact caagcaagaa 1800  
 aagaaacgcc aaaaacggaa gaatagacga aaaaataagt gtgtgtgtga tattcctact 1860  
 cccttacaaa cagcagatga aaaggaagta agccaagaga aggaaacaga cttcatagaa 1920  
 aatagcagct gcaaagcctg tggcagcact gaagatggta atacttgtgt agaagtaatt 1980  
 gttaccaatg aaaatacatc atgtacctgt cctagcagtg gcaatctttt ggggtcccct 2040  
 aaaataaaga aaggcttata tccacactgt aatggtagtg attgtggata ttcacttagc 2100  
 atggaaggga gtgaaacagg ttctcgggag gggtcggatg ttgcctgcac tgaaggcatt 2160  
 tgtaatcatg atgaacacgg tgatgactct tgtgttcac actgtgaaga caaagaggat 2220  
 gatggtgata gttgtgttga atgttgggca aattctgaag agaacgacac aaaaggaaaa 2280  
 aat 2283

<210> 1340

<211> 2099

<212> DNA

<213> Homo sapiens

<400> 1340

gtacgaaaga gaaacccgga gggcgccggg gactgggccg gggctctgcag ggctcagctg 60  
 agcccatgag ctcccagagc taacccttga acaccaggc gggcaaaggg ctgatgtcgg 120  
 tagtccccat cctggagggg caggctctgc gcatctgtc ctggcatggc gctgcggcac 180  
 ctgcacctcc tggctggcct tctcgtggga gtcgccagca agtccatgga gaacacggac 240  
 actgatgtcc cagccccaga ggtgctgacc aggtccactg ctggtgtcag aggggcctgt 300

gcctcgcaga ggggagccct ccgctgcctg ctgggcccag ctgcccaggt gctgtgtgga 360  
tgtggtgggc gtcaacgcca gctgcccagg cgcaagtctg tgtggtccag gctgttacag 420  
gcgctggaac gcggacggga gcgccagctg cgtccgctgt gggaacggaa ccctcccagc 480  
ctacaacggc tccgagtgtga gaagctttgc tggcccgggt gcgccattcc ccatgaacag 540  
aagctcaggg acccccgggc ggccacatcc tggggctccg cgcgtggccg cctccctctt 600  
cctgggcacg ttcttcatta gctccggcct catcctctcc gtagctgggt tcttctacct 660  
caagcgctcc agtaaaactcc ccagggcctg ctacagaaga aacaaagctc cggccctgca 720  
gcctggcgaa gccgctgcaa tgatccccc gccacagtcc tcagacgtgg ggtctgcagg 780  
aaaggaggac ccaccacgac agggcagacc cccaatacct gtcctctctt gaagtccagc 840  
tccaccggag gacagacgca gccggcctcc gccaggccct cctgagcagc catcgcttca 900  
gtggtgctgg gtcaggcgga cccaagagtc agcccgtacg gaagccgcgc tacgtcaggc 960  
gggagcggcc cctggacagg gccacggatc ccgctgcctt cccggggggag gcccgatatca 1020  
gcaatgtctg acctggaggc cgagaccacg ccacgcactt ggccggcaggg acccgaggc 1080  
cgacccttg gcgggaacca gcacaaagtg ttggcatcgc ccggcgcccg ggacagtcct 1140  
gggcacagcc tcggctctgg gtccctccgc ctcccagcga cggacgcaa aggggtcccg 1200  
gccgcctgag gtcctcccc accacagcca tctcgtttat cggaccagga gcaggcatcc 1260  
atgagacctc agagcttcag atcgaggcct tgggggggtcc gggccccccc aggaaacacg 1320  
gtgaggcccc agcgctgca gccaaagctg gcacgatcta tggggcaggt gccgctctgc 1380  
ctagaaaagc caggggctct gctgccgtgc cctccagagc ccacagcggg caggactcct 1440  
ccagcaccac cacaccagt ggcccagagc ccctctgaga acagtgaggc tggtcctcgt 1500  
gccgttccag ccggtgcccg gccagtgggg aggacacagc ctaggaacca gctgcctgag 1560  
accagggtgc ctctgggctg tcctcccgcg tggcggagac cccaagcacg cagccacca 1620  
tttccggagc tgcaggatag agcttctct tcatctctgt ttttaagcag aaattcattg 1680  
tgcagaaaag tcctccagag ctctgtggcc ccgctcggat ccgctggacc ccatgcctg 1740  
gctggtccct gccacgtgg ggcaggccca catctaacc ccacaagtca ctgcctcact 1800  
gcacctgcca aggctgccct ggcgctgagt cctgggggtcc ctcccggagt tcctgggaga 1860  
aaggcgccgt cgtggccgcc tcccgcacgc caggccggg ctccaccgtg ggtctcagac 1920  
gccctgcggc accggcaccg tctgctttag catgggaccc ccatctgagg ggtggcctgg 1980  
ccttcgggggt cccacgctc ctttgcaag tccactgtgg gtgccatcat ggtctccggg 2040

acctgggcca gcgggaacgt gggggcactg ggtgtgctga tataaagtcg gcattactc 2099

<210> 1341

<211> 1991

<212> DNA

<213> Homo sapiens

<400> 1341

cttcagcctc tctccagcat ctccaaccta atgcagctca aatgggactc gtgagttccc 60  
cagctgagct ccaatcgggg caccagctgc ttaagcccaa aatggacatt gacctcagct 120  
tttatgcatc aaatgtatca ggaagtctcc agtttgtttt tacgtctgga aatatatctg 180  
aaatccatgt gccacccta cccctcata gctttctgcc accagacaaa tccaaggctc 240  
ctttgtctgt cccatttta ctctgcccc tccagaaatt tctcctcacg gctgttcaaa 300  
gaaaatctag actcctcagc acagccaacc tgtctctccc tccctcacc acgtggcctt 360  
tgaagacatg gagccataga ggagaaccaa gtgctggatg tgggcttttt catgggcatc 420  
tgttttgagg agaaaagttg taaatgtttt tgtcttattt tcatagcatt gggaatggta 480  
ccacctcccg aaaatgtcag aatgaattct gttaatttca agaacattct acagtgggag 540  
tcacctgctt ttgccgaagg gaacctgact ttcacagctc agtacctaag ttataggata 600  
ttccaagata aatgcatgaa tactaccttg acggaatgtg atttctcaag tctttccaag 660  
tatggtgacc acaccttgag agtcagggtc gaatttgagc atgagcattc agactgggta 720  
aacatcacct tctgtcctgt ggatgacacc attattggac cccctggaat gcaagtagaa 780  
gtacttgctg attctttaca tatgcgtttc ttagccccta aaattgagaa tgaatacgaa 840  
acttgacta tgaagaatgt gtataactca tggacttata atgtgcaata ctggaaaaac 900  
ggtactgatg aaaagtttca aattactccc cagtatgact ttgaggctct cagaaacctg 960  
gagccatgga caacttattg tgttcaagtt cgagggtttc ttcctgatcg gaacaaagct 1020  
ggggaatgga gtgagcctgt ctgtgagcaa acaacctatg acgaaacggt cccctcctgg 1080  
atggtggccg tcacctcat ggccctcggtc ttcattggtc gcctggcact cctcggtctg 1140  
ttcgccttgc tgtggtgcgt ttacaagaag acaaagtacg ccttctcccc taggaattct 1200

cttccacagc acctgaaaga gtttttgggc catcctcatc ataacacact tctgtttttc 1260  
 tcctttccat tgtcggatga gaatgatgtt ttgacaagc taagtgtcat tgcagaagac 1320  
 tctgagagcg gcaagcagaa tcctggtgac agctgcagcc tcgggacccc gcctgggcag 1380  
 gggcccaaaa gctaggctct gagaaggaaa cacactcggc tgggcacagt gacgtactcc 1440  
 atctcacatc tgcctcagtg agggatcagg gcagcaaaca agggccaaga ccatctgagc 1500  
 cagccccaca tctagaactc ccagaccctg gacttagcca ccagagagct acattttaaa 1560  
 ggctgtcttg gcaaaaatac tccatttggg aactcactgc cttataaagg ctttcatgat 1620  
 gttttcagaa gttggccact gagagtgtaa ttttcagcct tttatatcac taaaataaga 1680  
 tcatgtttta attgtgagaa acagggccga gcacagtggc tcacgcctgt aataccagca 1740  
 ccttagaggt cgaggcaggc ggatcacttg aggtcaggag ttcaagacca gcctggccaa 1800  
 tatggtgaaa cccagtctct actaaaaata caaaaattag ctaggcatga tggcgcatgc 1860  
 ctataatccc agctactcga gtgcctgagg caggagaatt gcatgaacct gggaggagga 1920  
 ggaggagggt gcagtgagcc gagatagcgg cactgcactc cagcctgggt gacaaagtga 1980  
 gactccatct c 1991

<210> 1342

<211> 1816

<212> DNA

<213> Homo sapiens

<400> 1342

gaagtgctcc cagatgaact tggccgagag catcaccatg gccacgcaa gtaggcgggg 60  
 ctaggacccc acccacacc cctccctgga atcccagggc ccacctgggt gatgttatcc 120  
 cagagacagg gacaagagat gagaggatgg aaatgtctct gggaaaaagg ctgcaggagc 180  
 tggaggtgat gagcagagca ggcgaaggaa agggaggccc ctccctccctc catgttagag 240  
 aaggggagccc tagatctggc caccagcggc ctgtgcacac ctggggctga gggcacacag 300  
 ggctgcacat acacactcaa ggccactgtg agaacagggtg agcagggccca gagggctatg 360  
 gaaagcccgg ctgaaggctg cacctccagg ctgaagagag ctttaccggc atccgccagg 420

```

aagcctgggc tctggggctg tgtcattgta gatgaccatt tccaggtcat ggccacagcc 480
ccggttcttg tcacagctgg gccaccaatc ctctgcgcc acccaccact tagccatcgg 540
gccgtcttca gggcatcggc cggcctcagc tgctgcagcc agaccctggc gttgcggaag 600
gctggccagt ccacatcctg cagcctacga ggaggtcagg tctttgtcag caaaggtggg 660
aaaccagggg agcggcggca ccaggctcca gagacatttg aatgacttc agaagacca 720
gggccactca gggtgaccac atcggacagc tgcctccac aggctgtgac ggatgtttaa 780
gcaagggatc gatggtcacc tgactctcag gagtgcagga gaggccactg agaccattc 840
agaagggact ggggtgttgg cctgtggac tcggcctctg gctggtggtg aggaggagga 900
tttctacca cccatcctct ggcccctgct gccaaggga gcagactcct gtgagctggg 960
ttccgggaag tccatctcca gcaggaactc caggccaagc gcgcattctt gtgatcgtgt 1020
gtcaccatgg cgggtgcgtgc gtgagtgcac gcgtgtgcac tggctctgtg cctgtggtgc 1080
gtgagttcca ctaggacca tgtgaggtgg agggctcttc acctccctc ccattcgggc 1140
cctccctgtg ccacacagac acccatctgt gccttcccct tctgtgccac caaaaatgga 1200
agagatagac acttaaaaga agcaactcaa atggaatgaa atcgtttctg ttggggaatg 1260
ctcaagacgt tcaatcatct tagaaaatcc caccacact cccgctgcag attaattact 1320
gtaagtgcaa ctccaatcgg gctggtgacc cccaggaaa cctctgaagc tgtcccaggc 1380
tgttcccaac atgggacctc cactctggca caccaggacc cgaggcccct gacaggctcc 1440
tcgttctgc ctgctcaag gctcaggctc cccacctgaa atactccctc ccaccagcat 1500
ctcctgcctc gctcctgtg ccaggctccc aaaagctctt gttcatgagc tcgcctgcca 1560
tccacagccc ccaccagaac ccaagtggct gtggaattcg ctgccctgat tctctgccc 1620
gagcctcggg ccagactgtg ttccctggcg aattagtgtt cagcattttt gtttatttgt 1680
ttgttcttta acaaaagttg ttttggtttg agattcagca aaaatacaca ctgcattcag 1740
cttctctcc attcaggatt cagtaaattg gttgttttcc tgtcaaaaaa aaaaaaaaaa 1800
aaaaaaaaa aaaaag 1816

```

&lt;210&gt; 1343

&lt;211&gt; 2153

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 1343

gcagagggtc	ccacggtgga	agcgagagag	gaggactgaa	cattcttcac	gatctgaaag	60
gaaaagaaga	gattcttttcg	ggatgtttga	cggttatgat	agctgcagtg	aggacacaag	120
cagcagctcc	agctccgaag	agagtgagga	agaagtcgct	cctttacctt	ctaattctccc	180
gattatcaaa	aacaatgggc	aagtctacac	atacccagat	ggtaaactctg	gcatggctac	240
ctgtgagatg	tgtgggatgg	ttggcggtccg	agatgctttt	tactctaaaa	caaagcgttt	300
ctgtagcggtt	tcatgtttcaa	gaagttactc	gtcaaaactcc	aagaaggcaa	gcatttttggc	360
cagacttcag	ggtaagcctc	caacaaagaa	agcaaaagtt	cttcagaaac	aaccttttagt	420
tgctaagcta	gccgcatatg	ctcagtatca	agctaccttg	caaaatcaag	caaagacaaa	480
agcagcagtc	tccatggaag	gtttcagctg	gggtaactac	atcaatagca	atagctttat	540
agcagctccg	gttacctgtt	ttaaacaatgc	acctatgggg	acctgctggg	gtgatatctc	600
agaaaatgtg	agagtagaag	ttcccaatac	agactgcagc	ctacctacca	aagtcttctg	660
gattgctgga	attgtaaaat	tagcagggtta	caatgccctt	ttaagatatg	aaggatttga	720
aatgactct	ggtctggact	tctggtgcaa	tatatgtggt	tctgatatcc	atccagttgg	780
ttggtgtgca	gccagcggaa	aacctcttgt	tcctcctaga	actattcagc	ataaatatac	840
aaactggaaa	gctttttctag	tgaacgact	tactggtgcc	aaaacactgc	ctcctgattt	900
ctcccaaaag	gttttcagaga	gtatgcagta	tcctttcaaa	ccttgcatga	gagtagaagt	960
ggttgacaag	aggcatttgt	gtcgaacacg	agtagcagtg	gtggaaagtg	taattggagg	1020
aagattaaga	ctagtgtatg	aagaaagcga	agatagaaca	gatgacttct	ggtgccatat	1080
gcacagccca	ttaatacatc	atattggttg	gtctcgaagc	ataggtcatc	gattcaaaag	1140
atctgatatt	acaaagaaac	aggatggaca	ttttgataca	ccaccacatt	tatttgctaa	1200
ggtaaaagaa	gtagaccaga	gtgggggaatg	gttcaaggaa	ggaatgaaat	tggaagctat	1260
agaccatta	aatcttttcta	caatatgtgt	cgcaaccatt	agaaagggtta	cacaaaactt	1320
ccttttaaat	ggtttgacta	cctcagggaa	actgggtcca	ttgcagcacc	agtaaaacta	1380
tttaataagg	atgtttccaaa	tcacggattt	cgtgtaggaa	tgaattaga	agcagtagat	1440
ctcatggagc	cacgtttaat	atgtgtagcc	acagtaactc	gaattattca	tcgtctcttg	1500
aggatacatt	ttgatggatg	ggaagaagag	tatgatcagt	gggtagactg	tgagtcacct	1560

gacctctatc ctgtaggggtg gtgtcagtta actggatatc aactacagcc tccagcatca 1620  
 cagtgttaagt tgggtatacag aaaaggtgtc cttttgtaaa aatcagcaat tctccagagg 1680  
 actatctcac ataagtcac ttatgagctc acaggacaag aatataccta tgtctgattg 1740  
 gttgccaggt aagacattaa gactcaacaa caatatcaca gaatcagacc atgtgtccca 1800  
 tggcaatgtg aatccaatag tcaattacat aatgactata gaaacacaac agtcacaaaa 1860  
 ttaaaactaga cttactatct tagtgagtta aaaattacat actaaaagtt tattggtagg 1920  
 taataaatgc ttttgagtaa atagtggaaa atgtctcatg ttgaggctat ggttttgtag 1980  
 gaacaagtac ccttattttc agagcatcat gtacttaagt ataatggctt tggtaaagat 2040  
 agttcatata agttgtatct agacaactgt atcgtctaaa ttgtaaaca tttatctagta 2100  
 ccaattttcc ctttttattt ttcagcatca agagaaaacc aatcagcttc atc 2153

<210> 1344

<211> 1919

<212> DNA

<213> Homo sapiens

<400> 1344

gatttggccc cgactgcgag ccggacggga tggtagggg gcggagggcg ctgctggggg 60  
 cctgggaggc tggatttagg gctgcctggg cggtaccgcc cgaggggcaa gacccgacag 120  
 gcggggcgcg cgccgcaact ccacagacaa acgaatttaa aggagcaacc gaggaggcac 180  
 ctgcgaaaga aagcccacac acaggtgaat ttaaaggagc agccctggtg tcacctatca 240  
 gtaaaagaat gttagaacga ctttccaagt ttgaagttgg agatgctgaa aatgttgctt 300  
 catatgaact atttggagtt ttcctcgtct tactggatgt cactctcgtc cttgccgacc 360  
 taattttcac tgacagcaaa ctttatattc ctttggagta tcgttctatt tctctagcta 420  
 ttgccttatt ttttctcatg gatgttcttc ttcgagtatt tgtagaaggt ttttgatcta 480  
 ggccctgatt ccagacagc acctttggat ccacctggag gctaggagaa cttgccatcc 540  
 tgaagggaag gacacaggcc tggctgtttt taccatgtga tgactgtaga gccccagggc 600  
 cttcagcaaa ctcattgcaat agctaaggag tggttacagc aggtcttggg caagacccccg 660

tgctgtgctg gcctcaggtc tgaccaatg cagtcacagt agtgggtggcc acagaggtgc 720  
ttatgtcact caacccaag ctttaggtgc ctcagaacag agagagagac tctgtttgtt 780  
tgaggagaaag taagggaaga aaacaagagt ctcttttttg taatgcagag aattatcctg 840  
gatcttgtcc aagaccatta aggcagtacc gctatgagtc tgcaagaacc agagtttagg 900  
aggcttgggg tgccccctaa agcagataga gattagatca cagtatccaa gttctttcaa 960  
gtatctggaa agccttccca agaaagatgg gtacaaacaa gccctgacag tgaaaactac 1020  
aataaataca gtgaaaacta caatcaatac ctaactcttc aatgcccaga caccaaagaa 1080  
catctgctag catcaacact atccaggaaa acatgacctc accaaatgaa ctaaataaga 1140  
caccaggggc caatcctgta gaaacagaga tatgtgacct ttcagacaaa gaaatcaaaa 1200  
tagctgtgtt gaggaaactc aaagaaattc aatataacac agggaaggaa ttcataattc 1260  
tattagataa gttaacaaa gagatggaaa taatttaaaa gaatcaagca gaaattctgg 1320  
agccaaaaaa tgtaattggc atgccaaaga atgcattaga gtcttttaat agcagaattg 1380  
ataaaccaga agaaagaatt aatgagcttg aagacaggct atttcaaat acatagagga 1440  
gacaaaggaa agaataaaaa acaatgacgc atgcctacag gatctagaaa atagcctcaa 1500  
aaggacaaat ctaagtggta ttggccttaa agaggagggtg gggagtgtag aaagtgtatt 1560  
caaagggata gtaacggaac gtcccaaacc tacagaaaga tatcaatatc caagtacaag 1620  
aaagttataa aacaccgagc agatgtaact caaagaagac tacctcaagg gatttaataa 1680  
tcacagtccc aaagatcaag gataaagaaa ggatcttaaa agcagcaaga gaaaagaaac 1740  
caataatata caatggagct acaatatatc tggcagcaga ctcttttagta gaaacgtttc 1800  
aggccaggag agagtggcat gacatatgta aagtgtctgaa ggaaaaaac atttacccta 1860  
gaacagtgta tccagtgaat atatccttca aagtgaaggg gaaataaaca cttttccac 1919

<210> 1345

<211> 1695

<212> DNA

<213> Homo sapiens

<400> 1345

ccggctggtc gggcccagca gcgtggtgtg tcttcccaat ggcacctgga caggggagca 60  
gccccactgt agaggtatca gtgaatgctc cagccagcct tgtcaaaatg gtggtacatg 120  
tgtagaagga gtcaaccagt acagatgcat ttgtcctcca ggaaggactg ggaaccgctg 180  
tcagcatcag gccagactg ccgccccga gggcagcgtg gccggcgact ccgccttcag 240  
ccgcgcgccg cgctgtgctc aggtggagcg ggctcagcac tgcagctgcg aggccggatt 300  
ccacctgagc ggcgcgccg gcgacagcgt ctgccaggac gtgaacgagt gtgagctcta 360  
cgggcaggag gggcgcccc ggctctgcat gcacgcctgc gtgaacaccc cgggctctta 420  
ccgttgacc tgccccggtg gataccgaac tctggctgac gggaagagct gtgaggatgt 480  
ggatgaatgt gtgggcctgc agccggtgtg ccccgagggg accacatgca tcaacaccgg 540  
tggaagcttc cagtgtgtca gccctgagtg ccccgagggg agcggcaatg tgagctacgt 600  
gaagacgtct ccattccagt gtgagcgga cccctgcccc atggacagca ggccctgccg 660  
ccatctgccc aagaccatct ccttccatta cctctctctg ccttccaacc tgaagacgcc 720  
catcacgtc ttccgcatgg ccacagcctc tgccccggc cgagctgggc ccaacagcct 780  
gcggtttggg atcgtgggtg ggaacagccg cggccacttt gtgatgcagc gttcagaccg 840  
gcagactggg gatctgatcc ttgtgcagaa cctggagggg cctcagacgc tggaggtgga 900  
cgtcgacatg tcggaatacc tggaccgctc cttccaggcc aaccacgtgt ccaaggtcac 960  
catctttgta tccccctatg acttctgagg gtacacaggg gactgggggt gtggagagct 1020  
gacctcattt ctcttccccg aaggctcagc ttcgggcacc gactgcgtgg agcctccgc 1080  
ctgttccgc cactcacca gtgcaccag gcttctaggg cagcgttgca cggcgcccc 1140  
tggaatagca cggaagagca gccacaaaac tcaactgctg ccatcactct ttttttttt 1200  
tctgctttga ggcccttccc ttagattatg cactaacttt cttaaaactt tttcatccag 1260  
gggatgggtg gctttccaaa atgctgtgca aatggccttg tgagtttgaa ctagctgggg 1320  
agagaaaagg tggcaatgtg tgtcaggatga ctatcagccc ttctgccttt ttgtagccag 1380  
gcttgctatg aatgaaacgg ttctagtcgt gcggggggcc ctagtcatgc ctctgcgcat 1440  
gtggcatagg aagtggagtc tcttcccatg acccagcacg ttgttcttat ctgccttttc 1500  
ctctgtgaca tgcctgcctg cctgccttct catcagagag tcacaggagg gccttaaacc 1560  
ccacgcagat ccttctagac caaggaccca ctgttaaaag catggattct gcctgagtta 1620  
cttccctttt gagaaatcat atctcaaata cataacctgg taatataact gaaaaataa 1680  
aagtgattgc tcctt 1695

&lt;210&gt; 1346

&lt;211&gt; 1767

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 1346

tcctggatca aaggaaatac cttttaagat tcctggtagg tattacaaaa ttacttttca	60
atttataatg caactaggaa ttaacaagtg taccctgtcc actaaagtct caccaacact	120
gaagctcata aatttaatat ctcaaggcta ctttaatttg cattgattta attatgaggg	180
gaagatgtgt ttacattatg aacttcctct gaagcacact ttctgttccc atccattgtg	240
gatgtggtgt aagggtctaa agataaaggt tccaatgtca gggaacctca ggtcttagtc	300
ttatgatttt catgctccca cccagccag gttgtgggct gtgaactgtc cccaccaggg	360
cctctgctag cctgcatggt gcctttgtgc aaattagaaa atggcacct ctctgggaag	420
atgcagttgc cccctcacc accccccac cacttgacca gtggaatttc tagccttgat	480
gtgatggaga gtggccaact gagggcagtg gcactggttt gccttcttcc acaggtccct	540
ctcctccagg tgcccttcca gcctcacctt tgcagtgtt gccgtcccct gtgtagccag	600
acttgcatg gcacttgat gacctcgggg tgttctggca gatagcatcg atgtggcagt	660
tgtcagttcc ctccacacac tcatccacat ctggcagggg cagagggggc acatgagaac	720
ctctgttggc acctcttaag ggggtgtctt aaggtgggct tccaagggca gaatcccctc	780
ttctctaaaa cagaggcagt gacccccctc agaaacaggt gctgtctcac atctctctga	840
tttcagagta ggcagacact gatcttggga attcagaagg aacccccact gccctcaaaa	900
atactaaatt cacagtgaca gctaaaactc catcattcga aacactcctt tttttatttg	960
aaaacaaaca aaaaaccctt agagtgggta gtacacttaa cttgattagg aataatcaac	1020
ttaaagtgaa tgagtttacg gagaaggctt agagggaaa ttaagggaaa aggcattggga	1080
acagtggctt ctgggaaggt ggcagggtcc agcaatcact agtaaaggag gaagaaaggg	1140
ggatggggca tctgagggat cttcatctgt gtcatgattc tgcttgagac caggcctgct	1200
tccacttgcc caccatggag ccaagaagct ttagaggaaa aatgttccat cctggatgat	1260

tttcctcggc ccctgtgctg ccaacaatgg agacatccag agctggcaga ggttggcacc 1320  
 agctacctga agcctaataa gtgcagccct tcaggcccta atccccagtg tttagccctc 1380  
 tgtctcctgg ccctagctct aacaataggt gctatacaca cagctatact tgaaggaaga 1440  
 ggccactcac catctagcaa aaaagaggat ggtaggaaa ggacatagat gatgccaggc 1500  
 gcggtggctc atgcctgtaa tcccagcact ttgggaggcc aaggcagggt gatcatgagg 1560  
 tcaggagttc gagaccagcc tgaccttgat gaaaccccat ctctactaaa aatacaaaaa 1620  
 ttagccagggt gtggtgatgt gtgcctgtaa tcccagctac tcaggaggct gtggcaggag 1680  
 aatcgcttga accagggagg cggaggttgc agtgagctga gatcgcgcta atgcactcca 1740  
 gcctgggcga cagtgaact ctatctc 1767

<210> 1347

<211> 2422

<212> DNA

<213> Homo sapiens

<400> 1347

cagaggaggg aaatccaggg aagggtgaa tgctctgtgt ttaagggaga gatagaatgg 60  
 acagctgggc aaacacacac ccggggactc ctttctccaa gaccgatggg cattgggggt 120  
 ggcagaggaa ataccagcat ggaacaacat cccagggacc cgcgtcctcc ccaggttaca 180  
 gtcctgggtc cctgcatggc tgcattgtgt ctgcaggcca catctectca ggactcccgc 240  
 actcatcact ttccattgc tatggaagag aggtgtcaag gtggcacctg cctccctgtc 300  
 cgtagtgctc aggtgtgtgg ctaccagagg aaaagccact cccaaccttt gccgacaacc 360  
 atcccgtttc tgggttcctg gagaagtctg ggaagctgct ctgttgtaga ggctgaaagg 420  
 agggctgggt agagcccca gctgaaacca gccctgcccc ttacccttcc tcaccctctt 480  
 accttcactc tcctcctaac actccagggt tttgtttttt gtttgttttt tgcttttctc 540  
 accccagggc tcctgcctct ccagcctgga gacagatttg ctttgggatt gttacaaaaa 600  
 taataataac ccaaattgcag agaagccacg gaaagggtg agggcaacct tcccctcccc 660  
 ccgccctcct ccctcccat tccaaaccga gtacaaaacc gcacccaaag cagacattct 720

gtacaggggg gtgggtgggc tggggagcaa gcgggagggg cggccctgcg gttgctctgt 780  
 acaagtccgg gttggtgacg gccccagcag tccccacagg gccctgggg ggcgagcaggaa 840  
 gtgggcaggc gcctctagat gaaatattcc ttcttgctgt cccctcctga ctgcccgcct 900  
 tctgcattga tgatggccgt gtccgcgtct ggagcatcgt cggagccttt tgcctcatgt 960  
 gtcagtagtg gccaaggaag atgagcatga tgagcagcag gaagacaatg aaagccacga 1020  
 tcccaccgat gatggcgtgt cccgcccact taaggatatt cctggaagaa gatgcagtag 1080  
 ctctttctac caccaggcgt cagcactgga aacagacgca gtccaacagg actccctctg 1140  
 cctggctgtt gagcaciaaag cagaggggag atcagcaaga taccaaccac aagggcacaa 1200  
 gaactttctc tcaactgcaa tcatcatcag attggtctgg agagatctgg gggcagagac 1260  
 cggagctcag tgcatgttcc ttgctcttgg catcctacaa tagccttggt gtgctgaggc 1320  
 agtccccaca tgctgaggtc tgcccctgga gtgggaatca cccatccaga cattctgata 1380  
 ccaagaactc agacctctta tcgctgggag gcctggctct tatccctca actgttttaa 1440  
 tgagtgtctc aagtaaggga gcctctgatg tttccccgac aatgcatttc ccctattctg 1500  
 agaaaagata agactttctg gcgggaccca cagccattgg gatcttcaaa aaaatcgccc 1560  
 gtcaactctc cataaagggg cctctgtgtc accctgtcac tactcctgaa gctgggtttt 1620  
 gtggtcacag ctttgagaag aacttcagag aaggagcatt accctggctc tctagaagat 1680  
 atggcatctg agaaaagatt ctgtctcttg gcatagtaca agcttctctc tattttctgt 1740  
 ccagaccag tacactgtgc ttaagggtggg cagaaaaaaa aatgacagca gttgcatgca 1800  
 cccaatacct agtcttagga gaagcaactc tgagaagagc cagttagaga aggaaatgca 1860  
 cctgcgcctg cacttgagag gctttggggc ctctgcacac agaattattg ttcttggtgt 1920  
 cagacaagtg caggggatgg aagatggtgt caccagggc accactacca aagaaaggca 1980  
 gatgagagcc cacccttcta atgttttttc actaagcggc cattacacat tctagagtgg 2040  
 acctgggacc taagccctca gggaccccag tgggtgggctg gttttccttt actccactcc 2100  
 ccgtcacagt ttggggatgt tatcaggaag cattttaaaa aagggaataa gatggacaga 2160  
 gaaaggagat tctggaggaa gagaactgag gagggcttac cattaacatt gaggggtgtag 2220  
 taggccttgt agctgcccatt gttgctggtg gctgtgcagc cgtaggtgcc actgtcactc 2280  
 ttgttgagga aagggaagat cagggcactc tcctgggtca tcttcagggg tggcacactg 2340  
 cccctcttct cccataggta ctgctggggg ctgtcgaggc agacaaatca gaagagctca 2400  
 ggagagcata ggccaggag ct 2422

&lt;210&gt; 1348

&lt;211&gt; 1991

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 1348

cactttcctg	cgagtcgctc	tccgaagtgt	cgctgtccac	cggctcctcg	tccgggggtgt	60
ctctcacagc	cagcagggcc	actaagtcgg	ggacaccatt	tttgtcttct	ttgggtgttca	120
agcggatgga	ttcggcccca	gctggctcct	tctctgcctc	ttctttcttc	gatttgctcg	180
tgacggtgac	cagagccaag	aactcgcggg	gaccgtcttc	ttccccctcg	gagttgcagg	240
gcgcccactg	cctaaccagc	tccctggcag	cggcctgcag	cgtggcgtag	agcgcgctct	300
ggctcctctc	tccgctcagg	tcgccctggg	cgatctcctc	gatcacgatg	cccaggctct	360
cgtcggaaga	gtcctcggcc	tactcctcgc	cgggagcaga	cggccgctct	cctcggcttc	420
tcttcttgcc	cttctgggtc	aacctgttgc	gtctggttct	gtttctgcga	ccccgacggc	480
ccctccttgg	gttcctggct	gccccaaaga	gcgagccagc	ctgccctgtt	acctccccag	540
aatcctgggc	ctgcgtctcc	gaagcgggag	gggtgggtgc	ctccccgggg	gtcccagcct	600
ccgcggcctg	cgtgggcccc	tcatccagca	gcaggcgtct	catctgcctc	aggaccctcg	660
tgctctgcgc	acggtccttc	cacagaacct	tccagacccc	atccttgcct	gggatctccc	720
tgggaatggc	agcgtgattg	acgtcctcca	caaactccac	cagggcggcc	tgggccttct	780
cgttcatcaa	agccttcatg	tgctgcaacc	tgaacgtgcc	caggggcagg	agggtcggct	840
gcaggacggc	ttcgacgtct	gcctgctcca	ggccctccgg	gatgccggtg	accagcaggg	900
ccctgtgcgc	gtccacgtcc	aggctccggc	accagtcttg	caaaaggctc	atggccatgg	960
tgcagccccc	ttggcgctga	tcttggggca	gcagggagcc	cagatatagg	gtgggctgca	1020
gcgcacggtg	tcaatgcaac	cctagaaagc	cacttgcagg	gcttagagtc	ccggttccgg	1080
tgaatgtggc	aaggctggag	tggggctcgg	ggctcggggg	ctctagctgc	ctgctggccc	1140
gctggacgca	gtgaccttcc	cccgggaccc	ctctccagag	ctgtctgagg	atccgcgggg	1200
ggcttacgtg	tctgctttcc	aggacagctc	cctccctctc	tccctgacac	aggcctgagt	1260

gactcggcac cgcagccagg tgcagggggg cggcgccgag tgcacctgga gaggcgtggg 1320  
 aggtagcagc cgcagcttgc ctggcgctcg cgccgcgtct gagcgcgcac cctgggcctg 1380  
 aatctcagca gttccgctgc gacgcggctg ctcgcgcgtg cgcctgcgca gagggagccg 1440  
 cacaccctcc cctgtccccc gcccaaccgt ctccatggca acggtgcagc cttgagctgg 1500  
 ggtctgcgtc gctgtggcct gagacgcttt tcttaaaggt cccgatgaca aggacttggg 1560  
 gcctggaagc accactttca ttaaccagca aaaaacaagg ccgaaaccac agagggccag 1620  
 aaatcactca aggatacccg acctattca ggggatagag gcctccttcc agagggtacc 1680  
 ggcatcactg ggggttacia ttcccccttc caggggccag gtggaattca ggattatata 1740  
 ggccataaat aaagggcact ggccttgcag cgtaggacca ggacttactc gggatactgg 1800  
 cctcattcac agtatatggg tctcagtatc aaataggggg gccaggcac cacctgtgag 1860  
 caagacacca ttcagggtat atgggcctca cttgcagggt acaggcccca ctcgatggga 1920  
 ccggccctca ctccataca cgttcctgta ttctgaacta tgcatgcaca ataaatcctg 1980  
 tggttttgca c 1991

<210> 1349

<211> 2247

<212> DNA

<213> Homo sapiens

<400> 1349

gtgtgtgtgt gcatgtccgc atgttgctct gtgtgtgtgc atgtccgcgt gttgcttgtg 60  
 tttgtgtgtg cgtgtccgtg tgctgctcgt ctgtgtgtga acatctgtgc ttgtcctgta 120  
 tctgtgttta tctgtatact tccatgtctg tgtgacagag tccttgtgtc tgtgtgtcta 180  
 catgtctgcg cgtgtccctg tgtctttttg tatatatatc catgcctgtg tgcctgtgtt 240  
 cctgcgtgtg cttgtgtgtg cacgtgtgca tttgtgtgtt tgtcagagta tgtgtgcatg 300  
 tgtgtgtctg tcagcgtatc catgtgtgca tgtgtgtgtc tgtcagcgta tccgtgtgtg 360  
 catgtgtgtg tctgtcagct taaccatgtg tgcattgtgt tgtcagtgta tccgtgtgtg 420  
 catctgtgta tctgtccatg tatccgcgtg tgcctgtgtg tacctttgtg tgagcatcaa 480

gggacctccc aggcctggtg ctcaccgtcc gccccaacgc accctgcatt gcagcgactc 540  
cagctcggac acagacagct tctacggcgc agttgagcgg cctgtggata tcagcctttc 600  
cccgtaaccc acggacaatg aagactatga gcacgacgat gaggatgact cctacctgga 660  
gcctgactcc ccggagcccg gaaggcttga ggatgccctg atgcacccac cggcttacct 720  
accaccccca gtgcccacgc ccaggaagcc agccttctct gacatgcccc gggcccactc 780  
ctttacctcc aagggtcccg gtcccctact gccacccccg cccctaagc acggcctccc 840  
agatgttggc ctggctgctg aggactccaa gagggaccca ctgtgcccga ggcgggctga 900  
gccttgcccc agggctacctg ctaccccccg aaggatgagc gatccccctc tgagcaccat 960  
gcccaccgca ccgggcctcc ggaaaccccc ttgcttcgga gagagtcca gcccagcccc 1020  
ggagccctgg acccctggcc acggggcctg ctccacttcc agtgctgcca tcatggccac 1080  
tgccacctcc agaaactgtg acaaactcaa gtccttccac ctgtccccc gaggaccacc 1140  
cacatctgag cccccacctg tgccagccaa caagcccaag ttctgaaga tagctgaaga 1200  
ggacccccca agggaggcag ccatgcccgg actctttgtg cccccgtgg ctcgccggcc 1260  
tcctgcgctg aagctgccag tgccctgaggc catggcgagg cccgcagtcc tgcccaggcc 1320  
agagaagccg cagctccgc acctccagcg atcaccccc gatgggcaga gtttcaggag 1380  
cttctccttt gaaaagcccc ggcaaccctc acaggctgac actggcgggg acgactcgga 1440  
cgaggactat gagaaggtgc cactgcccac ctcggctctc gtcaacacca cggagtctctg 1500  
cgaagtggaa aggttgttca aggttacaag ccccggggga gagccccagg atggactcta 1560  
ctgcatccgg aactcctcta ccaagtcggg gaaggctcctg gttgtgtggg acgaaacctc 1620  
taacaaagtg aggaactatc gcatttttga gaaggactct aagttctacc tggagggcga 1680  
ggctcctgtt gtgagtgtgg gcagcatggt ggagcactac cacaccacg tgctgcccag 1740  
ccaccagagc ctgctgctgc ggcacccta cggctacact gggcctaggt gatggcagtc 1800  
catgtggctg ccaggccaag gcagtcacag gggccctgac cccaggccac acagacggac 1860  
atgggcccac atgggagggt gagcaggagc aaggctgtgc ttgcctaggg cctctgtgat 1920  
ggacatctcg taggaccag ccagtctcat ccagcaggtt gggttctagg gctgaaccag 1980  
gcgccaggct ccagaggacg aagggactct gttgccccac actaacttgc cctgtcccaa 2040  
tcccagaaac ccaggacca gctgtgcctg ggctccaagg acaggaacac tgggtccccc 2100  
atcacactca cccctaagtg ggctgggagc caggcagggc cagggcagct ggggtgggggc 2160  
cggggctggc cctgggaccc ccaggaacgc taagacacag gctccagtag gggctgttgc 2220

ctccaataaa gcagcagtga gctttgc

2247

&lt;210&gt; 1350

&lt;211&gt; 1632

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 1350

agctctggga gaggagcccc agccgtgaga ttcccaggag tttccacttg gtgatcagca	60
ccgaacacag accccccacc atggagtttg ggcttagctg ggttttcctt gttgctattt	120
taaaaggtgt ccaatgtgag ccgcacctgg tggagtctgg gggaggcttg gtggaaccag	180
ggcggtcctt gcgactctcc tgcacagcgt ctggattcgc ccttggtgac tatgctgtga	240
gctggctccg ccaggctcca ggaaagggac tggagtgggt gggtttcatt agaagtgaga	300
cgcttggtgg gacaccagaa aacgccgcgt ctcttgaagg ccgatgtttg atctcaagag	360
atgattccaa aaattccgcc tatctgcacc taagcagcct gaagttcgag gacacaggcc	420
gatactattg catggcagac cgttatgatg agagggatta tttctacgtc ggcgggggcc	480
agggaaacct ggtcaccgtc tcttcgcct ccaccaaggg cccatcggtc ttccccctgg	540
cacctcctc caagagcacc tctgggggca cagcggccct gggctgcctg gtcaaggact	600
acttccccga accggtgacg gtgtcgtgga actcaggcgc cctgaccagc ggcgtgcaca	660
ccttcccggc tgtcctacag tctcaggac tctactccct cagcagcgtg gtgaccgtgc	720
cctccagcag cttgggcacc cagacctaca tctgcaacgt gaatcacaa cccagcaaca	780
ccaaggtgga caagaaagtt gagcccaa atctgtgacaa aactcacaca tgcccaccgt	840
gcccagcacc tgaactcctg gggggaccgt cagtcttcct cttccccca aaaccaagg	900
acacctcat gatctcccgg acccctgagg tcacatgcgt ggtggtggac gtgagccacg	960
aagaccctga ggtcaagttc aactggtacg tggacggcgt ggaggtgcat aatgccaaga	1020
caaagccgcg ggaggagcag tacaacagca cgtaccgtgt ggtcagcgtc ctcaccgtcc	1080
tgcaccagga ctggctgaat ggcaaggagt acaagtgcaa ggtctccaac aaagccctcc	1140
cagcccccat cgagaaaacc atctccaaag ccaaagggca gccccgagaa ccacaggtgt	1200

acaccctgcc cccatcccgg gatgagctga ccaagaacca ggtcagcctg acctgcctgg 1260  
tcaaaggctt ctatcccagc gacatcgccg tggagtggga gagcaatggg cagccggaga 1320  
acaactacaa gaccacgcct cccgtgctgg actccgacgg ctctttcttc ctctacagca 1380  
agctcaccgt ggacaagagc aggtggcagc aggggaacgt cttctcatgc tccgtgatgc 1440  
atgaggctct gcacaaccac tacacgcaga agagcctctc cctgtctccg ggtaaagtga 1500  
tgcgacggcc ggcaagcccc cgctccccgg gctctcgccg tcgcacgagg atgcttggca 1560  
cgtaccccgt gtacatactt cccgggcgcc cagcatggaa ataaagcacc cagcgctgcc 1620  
ctggggcccct gc 1632

<210> 1351

<211> 1616

<212> DNA

<213> Homo sapiens

<400> 1351

agctctggga gaggagccca gcactagaag tcggcgggtg ctccaatcgg ggaccaccac 60  
tgagcacaga ggactcagca tggagtittgg gctgacctgg gtcttcctcg ttgtctttct 120  
tagagggtgc cagtgtcagg tccacctggg ggagtcaggg ggaggcgctg gccagcctgg 180  
gaagtctctg aaactctcct gtcaggcttt tcatctggac ttcaaact taggcatgca 240  
ctgggtccgc caggcgccag gcaagggcct ggaatggctg gcggtcatat ggtatgatgg 300  
aagcaacatc ttttatgcgg actccattaa agaccgattc ataatttcca gagacaatgg 360  
caacagaaca ctatatctcc agatggacaa ttgagagcc gacgacaccg ctgtctactt 420  
ttgtgtgacg gggaggaggg aatctgggtc ctctctctgg ggccaggga cactgggtcac 480  
cgtctctgca gcctccacca agggcccacg ggtcttcccc ctggcaccct cctccaagag 540  
cacctctggg ggcacagcgg ccctgggctg cctgggtcaag gactacttcc cggctgtcct 600  
acagtcctca ggactctact ccctcagcag cgtgggtgacc gtgccctcca gcagcttggg 660  
caccagacc tacatctgca acgtgaatca caagcccggc aacaccaagg tggacaagaa 720  
agttgagccc aaatcttgtg acaaaactca cacatgccca ccgtgcccag cacctgaact 780

cctgggggga ccgtcagtct tcctcttccc cccaaaaccc aaggacaccc tcatgatctc 840  
 ccggaccctt gaggtcacat gcgtgggtgg ggacgtgagc cacgaagacc ctgaggtcaa 900  
 gttcaactgg tacgtggacg gcgtggaggt gcataatgcc aagacaaagc cgcgggagga 960  
 gcagtacaac agcacgtacc gtgtgggtcag cgtcctcacc gtcctgcacc aggactggct 1020  
 gaatggcaag gagtacaagt gcaaggtctc caacaaagcc ctcccagccc ccatcgagaa 1080  
 aaccatctcc aaagccaaag ggcagccccg agaaccacag gtgtacaccc tgccccatc 1140  
 ccgggatgag ctgaccaaga accaggtcag cctgacctgc ctgggtcaaag gcttctatcc 1200  
 cagcgacatc gccgtggagt gggagagcaa tgggcagccg gagaacaact acaagaccac 1260  
 gcctcccgtg ctggactccg acggctcctt ctctctctac agcaagctca ccgtggacaa 1320  
 gagcaggtgg cagcagggga acgtcttctc atgctccgtg atgcatgagg ctctgcacaa 1380  
 ccactacacg cagaagagcc tctccctgtc tccgggtaaa tgagtgcgac ggccggcaag 1440  
 cccccgctcc ccgggctctc gcggtcgac gaggatgctt ggcacgtacc ccgtgtacat 1500  
 acttcccggg cgcccagcat ggaaataaag caccagcgc tgccctgggc ccctgcaaaa 1560  
 aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaag 1616

<210> 1352

<211> 3518

<212> DNA

<213> Homo sapiens

<400> 1352

gcaaaatggg gataacagta ctcacaaaaa agagctgctg cgaagatgaa atgaaaggctc 60  
 tgggggtttcc agagtccgcg gttttgctaa gaagccgcag tgatgttgac gcggctggctc 120  
 ctcagtgcac acctgagtag cagcacctct cgcacctgga cgcacgctgc catcagctgg 180  
 gagctggaca acgtgctgat gcctagtccc agaattctggc cccaggtgac tccaacaggc 240  
 aggtctgcct ctgtcaggag tgagggtaac acctcctcac tctggaattt ctcagctggg 300  
 caggatgtgc atgcatagat aaccagaacc tgtgagtctg tgctgagctc tgccgtctac 360  
 acccacggct gtggctgcgt gaggtctgcc acaaacatta cctgtcagtc ctcaggacaa 420

caaaggcagg cggccccgca ggaagaggag aactcaatct gcaaggccca tgatagtaga 480  
gagggccgcc tgggctaccc cctcagtgcc catcagcctg gttccggtgg tcctaactag 540  
ccctgtctcc ttgccaatag ccctgtgctc cccagcccc tccccatgc agacggctgc 600  
tatgacatcc ctgttcctta aagtgcgggg ttctcgtctg ctttctctc cctaactggc 660  
accctgtgca aacctgctgc agagaacagt gtcttgggca gtgcgatagt cctccagttc 720  
accaacagta aaaatggtct caatggggag agatgtctga ctgcaagcgc tgagtccttc 780  
cagaggaggg ctggaggggac aggagggcgg atcagggtggc ctctgagct ggttcctggc 840  
gccgatgtaa tggatgctga ttaccagcgg tgagggcac gtggaaggga ctgcagaggt 900  
gtgcgagatg agtggaatga ggccccaggt gctgattttt atgcccagga tgctcctggc 960  
tgtcatgggc tcccaggggc tccaggcatg cacagctctt ccgcctcttc tcgaagcaga 1020  
atgccccaga aagggcacct ttactatcca ggggtggctag agtcgccggt ggctgtgcgt 1080  
gggggctgag ggctagaatc agggcaaggg gctttcagtg aaacgcagag ccaggcaggg 1140  
acagcgcgga tctcagaaca gtctttgtca gatgggacac ttcacccccg cggagctgtc 1200  
cgtgcacaca gcgttctctg attgccaagc tgtaagcac tctgcggaag ggagctgctg 1260  
ggaaggcgga cgaggcatct caggtgggtg aggggctccg ctgcatcagc gttgctcaga 1320  
cccaccatcc ctggggagct gtcactgacg cccaggtttc cccttctcag tacatcctgt 1380  
gcctcctttc tgggctgcct cagtccctca aaggggagct cccacatgg gtgggattat 1440  
tgttgagaac agtcagggtg ttgacgagga tgcaggactg aggttgctcc cagagtcact 1500  
cagtgtccct cgttttgtc ggagacatcc tgacctgggc aagctcttta gggagcatct 1560  
ttcctgtctg tgccgcattc tccatggcct ttgcaactct tttgcttttg ttttaaacac 1620  
gtcatcaatt cattgcctgc agcagcttgt actgcctttt ggtttttctt tgcagaacag 1680  
ctctggaagt gaagtgtgtg tgtgtgtgtt tgcgtgact actctggact gggcgcctta 1740  
cacgtgttaa cacacttgat cagctcagca acactgtgga ataagtgtaa tgtgtccatt 1800  
attcagatca ggagactgag attcagagca gggagggaac ttgccagaga ccacatggct 1860  
tgcaagcagc agaacctggg tttgaactga cagcggcctg acttcagaac ccacgctttc 1920  
ccacctcct acttcacacc catttgagtc cagccatctt ggttctgaat cataaccctg 1980  
actctcctgg ccacatccta tgctccacat tacatgttac tctacaggtt accaccctgg 2040  
gtctctttcc tatataagaa atagaaatat ttgtggaaat cctaagtgtc atgacatctc 2100  
tgccatttta tcaggaaaaa ttctatccta ccaaatactg gtataatgta cttggcccc 2160

ctggattgga ttggtatagg ttaagagcag atataaggtc tgaaataatc ccggtattcc 2220  
tagtatgtgg aattattatc atggaatcat aatggcagtt tgcacctctg ttgggctctt 2280  
tcaactcctg tgttggctca ggagaatcct atcacattag tccccctttg tagttggata 2340  
gttgggcttg ccagaaggca cacaattttg ggtaaactca tttccaggat tctggcattg 2400  
tagacacaga aacaccgact gtgaagtttt atgtaataca aacactggga gatttagcaa 2460  
taggcctgcc aggcggccct ggcttctggc tgcacaacaa aggggggtgg ctggtgctga 2520  
atggggcaac agaaggtgag tttggggcct gcagagcctc gggtagccca gaggagcgag 2580  
agagtattgg ctgttcattt taactccatc cttggaggat tccccaccac aagcctaagg 2640  
aagtaataaa acctcatgca ttattttttg atatctggag agaaacacgt accctagaaa 2700  
tgctgtggac taattccatg gttactttgt cattaaagaa accaaaatac tgagaggtca 2760  
ccataaacac aaaaaggcag agagagaagg attaaatggt gtttcatgta aggatcttta 2820  
aaggagaca gaattctagt ctgaaaggag cgcaggcaga tctggcattt tgcttgggga 2880  
gttcaattct ttggagaaaa tacagagaca aaaagaccat tttgatggta tttaaaatat 2940  
ccctctgccc agtgtatcta agtgagtcta aatatattca gcaatttttt aaagggcaga 3000  
tattaggccc gattcaaggc atggaatata gattcgaaag ggtagtgat aggtgagtgc 3060  
ctttcaggta gctttgcatc acagaccaag cccattattg aggactgtac gtatggagca 3120  
ggcccgtgag cttgtgactg agtttcccaa cctgccaggc tcccatttgc ttaggatgaa 3180  
tatttttctg ccctccctgg tgagccactg tgggccactc gccactcctt acacccttc 3240  
cctttaatac ctcgcttggc ttacttgcaa aatccacatg catcctcctg gatctcacag 3300  
aagatgtatg aaaagtcatg gccatgaaaa gggcacggaa atcaaattaa ttaattttgc 3360  
tttttcccca cgtttgtttc tgtctgtctg gtacttttcc tttttaagcc tgccatctct 3420  
ttgaaagtga gccgcacagt gataatccat tttcttcatt gtaacccac agtgtatgta 3480  
ttccacatta aataataaaa gggattaata attaaatc 3518

&lt;210&gt; 1353

&lt;211&gt; 3620

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 1353

agagcggcgg ccggtccgc gcggagcccg gcgcccctcc agcccgagcc aggacgccgc 60  
cggccccggt cccggccccg ggcacgcagc gagccaggga tgtgagcggc gccccgcggc 120  
atggcagcct caggggtgcc cagaggatgc gacatcctca tcgtctacag cccgatgcc 180  
aaggaatggt gccagtacct gcagaccctg ttcctgtcca gtcggcaggt ccgcagccag 240  
aagatactga ctcacaggct gggccccgag gcctccttct cggcagagga cctaagcctt 300  
ttcctcagca cccgctgtgt cgtggtgctg ctgtccgcgg agctggtgca gcacttccac 360  
aagcccgct tgctgcccct gctgcagaga gctttccatc ctccgcaccg cgtggtcagg 420  
ctgctctgcg gcgtgcggga cagcgaggag ttcctagact tctttccaga ttgggcccatt 480  
tggcaggagc tcacctgtga cgatgagcca gagacctacg tggcagctgt gaaaaaagcc 540  
atttccgaag attctggctg tgactcagtc actgacactg agcctgagga cgagaagggtt 600  
gtttcctact cgaagcagca gaacctgccg acggtgactt cacctgggaa cctgatggtg 660  
gtgcagccgg accgcattcg ctgtggggca gaaaccactg tctatgttat tgtgagatgt 720  
aagctggatg acagggtggc gacagaagca gagttttctc ctgaggattc tccctctgta 780  
aggatggaag ccaaggtgga gaatgagtac accatttcag tgaaggctcc caacctttca 840  
tctgggaacg tttctctgaa gatataattct ggagacttag tgggtgtgtga aaccgttatc 900  
agctattata ctgacatgga agaaattggg aatttatgtt ccaatgccgc gaatcctgtg 960  
gaattcatgt gtcaggcctt taaaattgtg ccctacaaca cagagaccct tgataaactg 1020  
ctaaccgaat ccctgaagaa caatatccct gcaagcggac tgcacctctt tggaatcaac 1080  
cagctggaag aagaagatat gatgacaaat cagagggatg aagagctgcc caccctgttg 1140  
cattttgctg cgaagtatgg actgaagaac ctactgcct tgttgctcac ctgcccagga 1200  
gccctgcagg cgtacagcgt ggccaacaag catggccact accccaacac catcgctgag 1260  
aaacacggct tcagggacct gcggcagttc atcgacgagt atgtggaaac ggtggacatg 1320  
ctcaagagtc acattaaaga ggaactgatg cacggggagg aggctgatgc tgtgtacgag 1380  
tccatggccc acctttccac agacctgctt atgaaatgct cgctcaacc cggctgtgac 1440  
gaggatctct atgagtccat ggctgccttt gtcccagctg cactgaaga cctctatgtt 1500  
gaaatgcttc aggccagtac atctaaccac atccctggag atggtttctc tcgggccact 1560  
aaggactcta tgatccgcaa gtttttagaa ggcaacagca tgggaatgac caatctggag 1620

agagatcagt gccatcttgg tcaggaagaa gatgtttatc acacggtgga tgacgatgag 1680  
gccttttctg tggacttggc cagcaggccc cctgtcccag tgcccagacc agagaccact 1740  
gctcctggtg ctcaccagct gcctgacaac gaaccataca tttttaaggt ttttgcagaa 1800  
aaaagtcaag agcggcctgg gaatttctac gtttcctcag agagcatcag gaaagggccg 1860  
cccgtcagac catggaggga caggccccag tcaagtatat atgacccttt tgcgggaatg 1920  
aaaacgccag gccagcggca gcttatcacc ctccaggagc aggtgaagct gggcattgtc 1980  
aacgtggatg aggctgtgct ccacttcaaa gagtggcagc tcaaccagaa gaaacgatcg 2040  
gagtcctttc gtttcagca ggaaaatctt aaacggctaa gagacagcat caccgaaga 2100  
cagagagaga agcaaaaatc aggaaagcag acagacttgg agatcacggt cccaattcgg 2160  
cactcacagc acctgcctgc aaaagtggag tttggagtct atgagagtgg cccagggaaa 2220  
agtgtcattc cccctaggac ggagctgaga cgaggagact ggaaaacaga cagcacctcc 2280  
agcacagcaa gtagcacaag taaccgctcc agcaccgga gcctcctcag tgtgagcagc 2340  
gggatggaag gggacaacga ggataatgaa gtccctgagg ttaccagaag tcgcagtcca 2400  
ggccccccac aagtggatgg gacaccacc atgtccctcg agagacccc cagggtgcct 2460  
ccgagagctg cctcacagag gcctccgacc agggagacct tccatcctcc tccacctgtt 2520  
ccaccagag gacgctgatt ccacctcta aaacctgcct acttcaggac ttttaagactc 2580  
acagtcttca gcctgttaat gatgtcttca tgttgagttt tatagcatga ctgttgacct 2640  
taagatccat tctcattgct gataatgctg cagccctgct gggttgggct tgcctcgaag 2700  
attttattaa ggcacgaaga agtgaaaaac taagggttc attcaccatc accaagtata 2760  
tcgaaccata tacttgtttg ccaaaaggat gaagacttaa tcgaaatact tacctctaata 2820  
ttgccatata agaagcctaa aaagaatgat cataaatgta cttcaccagt gattttactg 2880  
aatgcactt atattagtct ttatgtatit gctagttcag cctgatttct agaagagggtt 2940  
atagtgtgag acttgtagta ttcaagtaag ataagtgacc taattttaaa ataattcttc 3000  
tacttttctg tatattcagc aggggtattta agtgctaggg ctggtcacac acaaccaact 3060  
gaaaaagact agagggatta gtacaaactc ctcttataca gaaggcaaat ctgaggttcc 3120  
acagaagtct ggaaccaaga ctattcagtt ggtaaataa agagggttagt ctagactggg 3180  
cctgctcatt ctaggtcacc acattttcca tctccaaata gccaggccct ctctccctca 3240  
agaaatgccc agatgtagaa attcatcagt gcctattggg cttccagaat tttccatctt 3300  
ccgtatctcc caggcatgag actaccaagt ttgtttgttt tctttccaat ttgggaattt 3360

atacttcagt atggtttcaa cgcagttatg tttccagaga acatctagaa gtggctggaa 3420  
 accagaagct ggggattcca gggacccac ttagtgctct atttccttta taggttttat 3480  
 ttctggatcat agagagagaa ggacctttga ctttttcttc gttgaggctt ctgaggagga 3540  
 aaaacaaacc taaaatagaa atacagtcag cctttcaa at ccatgggttc tgtgtccgtg 3600  
 gattcaacca accttggatc 3620

<210> 1354

<211> 3837

<212> DNA

<213> Homo sapiens

<400> 1354

gtttatcccg cgcagcagct gccgcctcgg gacacgctca tttccacggc caccggcaag 60  
 ccactcctgg cgactccccg ggacctgagg agccgcggcg cggaggtgac cttccccggc 120  
 ctgcgcctcc cttcttcttc ctccccagct gggcgcgtgg tcgcgtcgcc cggggtctct 180  
 gctgatgccc gagaaatggg ctgggggtgc cgggtgccag gatgggggtg ggcgcccta 240  
 ggccggcctg acttcgggac cgggctgcgg gcgagggtct cggggcccgg ctcgcccggc 300  
 ttccgggccg agaaagaagg gcagaggaag cggtcagggt cccctccggc cccggcctcc 360  
 ctcccgaggt ataagccctt ggaggccagg ttttgggttg ctgccgcca gccctttcgg 420  
 tctccacttc tccccacgga cgtttacagc tgctcgcttt atttctcct ccattcccc 480  
 gtggagcccc ctccggcagc gaggggtcgc gtgcttctcc tctccgcct gcgcctcccc 540  
 ccttcccacc cgacagcca ggaggagctg cgggcgcggc cctgggacgg ccggagcctg 600  
 gggcttctgc tcgctcgcgc cttcccaggc gttgccgcgg gtccgagccc ccgcagaggt 660  
 gggcatagcc ccggggccgc agaaaacgaa ggcagctggg cagggatgct caatttcccg 720  
 agccccactt tcttttcaca gctcactggg atgtgtagtt cttccgcccg caggcctgcg 780  
 ccgaggagaa gcacgactcg gggccttaga aactacaagt ccctgcatcc cccgcgacaa 840  
 gggcaggaga ggcgtggtgc tgggcgttct ggggctaggt ggtgggagtt gggaaccaac 900  
 aaaggggggtt gtggggaacg gtgccttctc tgtactgggc agtttgcacg ttacacatgt 960

tctttgtcta atcttcgccg gaacccggtg aggcattatt gtatccagct tagagaaagc 1020  
ttaactactg gccaaacatc acaaagctcc caagtagtag agatggcatc gaacccagag 1080  
ccctaagtat gtcccttaca aagcgtgcct cagtgaggag tgtcgaaggg ggatgagatt 1140  
ggcttatcca agagggccag ttgggaggag ctgtggtaag gaaaaagtga tgggaatagc 1200  
aattagagta tgacatgcaa ttacaaggag ttttgaatac aagtgaaatt tacaggggtc 1260  
cattccaaag ccggttagag tctagggaga atggatctta agcacacgat aataattggg 1320  
ttttaattat tttagatatt gtatgagaga caagcatatt acagggacaa ttaagtattt 1380  
gtggctggac tagttttaaa aaaccaactg gaaagcttca tacatttcaa gtgaaagctc 1440  
tcatatgctt tcctgtcctt tagctaata gaacacggg gtattattct tattctgttt 1500  
attgcaagca ccttttctgt ggggtgtccaa ttaatatatt agatccattg atttgatggc 1560  
attaaaaaag actcccactc ttattctcaa tgaaaccgaa tttttctggc attatggtta 1620  
tgcttttaaa aagtccttcc ttgtctgtta gagatatgta ctaaagtatc tgccagcgaa 1680  
ataatataaa gtctgaaatg tgcttttaaa cacaccagcc catccactcc cctcctccca 1740  
cccaccagc tccagacatg gaggtataaa tgaaacaatt ggaaactgtt gaaaatagtt 1800  
gaccttgggt gacatgtact tgtacttaat tatttattgc tgcaaattgc cacaacgta 1860  
gtggccttaa aacaagacag atttttctca cagtttttat ggatcaggtg tccaggtaca 1920  
ctcagtcacc cacttagggt ctcacgcctg ccatcaagga gctggccagg ctgcgttcac 1980  
attcactgga gaagaactgg cttccactct gactccgggc acaggcaaaa ttcctttcct 2040  
tgcagcagta ggaccgaggg ccctggcttc ttgctggctg gagactggag actgtcctca 2100  
gctccaagag ggaacctgca attcctagag gttacctgga cttcattgtc acttgggctt 2160  
tccgagcaca gccacttatt ttgtcaggcc tgcaaggaga gtccccagag tgagtctcca 2220  
gcaagacaga attttatata acataaagca atcccacggg ggcaacttca aatgtgaaca 2280  
ttctgttggc cagaaagcat gttttgcaca cactcaaagg gagaggagta cacagggcat 2340  
gaaccctagg gtgaggggca ccccgagtg catccaccac agtgtacatg agagtccatt 2400  
atgcttttct tacctaccac atctactcat gtttatgttt gacattttcc ataataaaaa 2460  
gaaatgaatt cgttttaaaa tgttacctaa agtttccaca gcaaataaga taatgtgat 2520  
atgatttcta aataagctga tacaattgtc tgtagttgtc ttccagggga taactttttt 2580  
cttcccactc catgtgtact aagacctctg cggttaattc acttgtatgg gttaccctcc 2640  
cctaagagcg ttcactagaa cctggtgtgt gatagctgca gagttcacct caccagctac 2700

agttgatctt gaacaatatg ggtttgaaca gcgtggatgc ccttagacac ggattttttt 2760  
 caaccaaagtg cagatggaaa atacagcatc cgtgggatgg gaaatgagag tattcagagg 2820  
 gcaaaggccc actcttccta tatgcaggtt ctgtggagcc tgtttaagga cctgaatatg 2880  
 tgcagattca ggtatacgca ggtgatcctg gaaccaatct cctgaggata ctgagggatg 2940  
 actgtaaaac ctactgtata agggatggta gagtttattc atttatttta cagttatcta 3000  
 tttcagggcc tagattgtgc taagtactgt tttagcagca gtgatacaaa aagatccaag 3060  
 atagaagctt atatttgggg actgggggag aggtggagag aataaacaaa taaataaatg 3120  
 actagtaaga caatttcaga gagtaattac aagaacgaaa aaacaaagca gggttatggg 3180  
 atggagagac tggggtcggg cagagaatcg aatgatggga aggggcaagt accaagtcct 3240  
 caaggcagaa caacctggaa aattctaggg gtacaaagaa aaaccagtct ggctggagtg 3300  
 gagcgagggc caggagaga gggaaaaagg aacaggaatt cattctgtgt gcaccagcat 3360  
 caattctgta tgccacactc tgtaccacc atcggtgtaa gtgttgaggg gtctgaaaga 3420  
 aaaatcaccg tccttgccct ccaggaatgt atagattcca aactttaatg ctagagggac 3480  
 gtcagcgtat ctagaattag agacaaaaac ttgtatttct caaacaagga cactgaaaag 3540  
 tcaaaagacc tgctaaaaat tccttgagaa tgcctcgcca ataacaata atccaaaaat 3600  
 gagtcttgaa ttgaattgaa agagtgcag atctactttt gctaaatggg gtttagccta 3660  
 atactgcctc ttacatatt ttaagtttgg cctaaagggt tctctgtaca ctgaactgta 3720  
 gcctaaatgg aagtgtaaac agagtgtgat ctactcgggt gtcaattact gagttttggc 3780  
 cactcaattg tggccagctg ttcaaaccat gtcaaataa gacaaatgct gagctgt 3837

<210> 1355

<211> 2759

<212> DNA

<213> Homo sapiens

<400> 1355

gtccttagac aaagcggctg ccgccccgc ccggccccct ggtctctgtc tccgtccctc 60  
 ctcttttgcg gcctctttcc ctctctctct cctccctcc tccctccct ccagctctccg 120

gatctccctc ggtccctctc tcctcctctt cctctctctg gacgcccggc tcctccgcac 180  
ccccccccc ggggggtccc cggcctgtga gttgactgag gggctcagac ttggggagtg 240  
ggtgtctcct cgtccctgtc cttgctcccg tccctggccc ggaccttggc tgtctcctct 300  
ttgtgccgag attgtcagtc tgtgcggcta cagcgggggtg gagacggccg gctctgtcac 360  
ggcttcatga gagcggggac ggggcgcagg acttgcaggc gccggggaga agagacatgg 420  
agccggccct tggcactctg gggtcgcgtg gggcagtcgg tgggggaggc aggcgggtgt 480  
gacaggacag ggtgggggtg gacgccaggg ttctgggaac gcgctggcag ccctgacgcc 540  
caggttcccc tcaccctgc cacatttctc tcttctccct cacgccaact ttctttttcg 600  
cccttctctc tctttctcac atcctagaga cggctcttaa tacgcattaa ccctgtgctg 660  
ccacatctgg ctctgcctt cattgcctcc aatccggact ctctctctca catcaccccc 720  
accaccccc aactgggctc acaacttctc ttcacttttt ccatttcccc agttctctgc 780  
cttccgtctt tccctctgtc ctcatcctta gcccctctgc cctgctttgt gtcccacctc 840  
tccccctcca ctctctctc tcccaccctc agtctcacc cgggctgtc tctctctctg 900  
gagcctctcc ttctgttct ctgtccccag tgctccctac cctcacctca agacgaccat 960  
ggccaccatc ccagactgga agctacagct gctagcccgg cgccggcagg aggaggcgctc 1020  
cgttcgaggc cgagagaaag cagaacggga gcgcctgtcc cagatgccag cctggaaacg 1080  
agggctcctg gagcgccgc gggccaagct tgggctgtcc cctggggagc ctagccctgt 1140  
gctagggact gtagaggctg gacctccaga cccggatgag tctgcggctc ttctggagac 1200  
catcgggcca gtgcaccaga accgattcat ccggcaggag cggcagcagc agcagcagca 1260  
acaacaacgg agtgaagagc tgctagcaga gagaaagcct gggcctctgg aggcccggga 1320  
gcggagaccc agccctgggg agatgcggga tcagagcccc aagggaagag agtcaagaga 1380  
agagagacta agtccgaggg agaccagaga gaggaggctg gggatagggg gagcccaaga 1440  
gttgagcctg aggcctctgg aggctcggga ctggaggcaa agcccaggag aggtgggaga 1500  
caggagctcc cgactgtcag aggcatggaa atggaggctg agtcctggag aaactccaga 1560  
gcggagtctg agactagcag agtctcgaga gcaaagcccc aggagaaaag aggtggaaag 1620  
tagactgagc ccaggggaat ctgcctacca gaagttgggc ctgacagggg ccataaatg 1680  
gagacctgac tccagagagt ctcaagaaac gagtttggtg caactggagg caacagagtg 1740  
gaggctgagg tcaggagaag aaagacaaga ctactcggaa gaatgtggga gaaaagaaga 1800  
gtggccagtt ccaggggtag ctcaaaaaga gactgcagag ctgtccgaga ccctgacaag 1860

ggaggcccaa ggcaacagtt ctgcaggagt ggaggcagca gagcagaggc ctgtggaaga 1920  
 tggcgagagg ggcatgaagc caacagaagg gtggaaatgg accctgataa tgagcctggc 1980  
 aggggaagggc aaccaacatc ttgtaacttg ctttccccac cctgtttctg ggggcagagc 2040  
 caattgcccc atttctacc taatccaaag tccctgggtg ggggtggggtt aaacgtgctg 2100  
 gtgcatccta ggtcatccaa gagtgagcgc caagtcctga gaaggggcac agaactccct 2160  
 ggaggggtgga gatggagcac ctgccccca tggcagggtg cactctccc acagccttcc 2220  
 tccccacat cccgtgggga ctctcgggat ttaagcactc gtctctctgg gaggcccaga 2280  
 cccactcca tttataggca catctccttc atttcctagg tcaactgccc tttgtttaca 2340  
 gctcctgcct cctcccttga ccacagcctg gtttacaat tccatcagct ccagcccca 2400  
 cctgccaaag tcccaggttt acaagccacg cttacttgct gtgtctgcgt ggaattctct 2460  
 cctctgtccc ctccagtctc ctcatggag tgacctgaag gtgtggcttc ctccactttt 2520  
 tctcagtatt actttgcctt agttttcccc aagagggaag gctggaactc ttaactctgt 2580  
 accccttgat agttatttaa ttctgtttct cctagtgggt cacaattgaa ctgaattgag 2640  
 atgggtgcgg gtggctaagg agacacctca cctctccttc cccattgtgc cgcctttatc 2700  
 aattgcctgt tttgttttgt ttgtttttta actttccata ataaaatgga gttctcttc 2759

<210> 1356

<211> 4129

<212> DNA

<213> Homo sapiens

<400> 1356

ctttgttgaa gattaaaagc cacttagaat ctaccattta cactcaagat ctgcatgtgc 60  
 acaaattctt ccatcattgc cagctgattc agtcaggctc gaaagaagtt ccagggggagc 120  
 tcattaaata tttaaagtgt ttgcatgcca tggagatcca agtcatgata cagtttctac 180  
 ctgtaattct tatgcaactc ttccgagttc tcacaaatat gacccatgaa gatgacgttc 240  
 ctatcaactg caccatgggt ctcttacata ttgtatcaaa gtgccatgaa gaaggcttgg 300  
 atagttatct aagatcattc ataaagtata gcttccgacc tgaaaaaccg agtgctcctc 360

aggcccagct gatacatgaa accctggcta ctacgatgat agcaatattg aaacagtctg 420  
cagatTTTTT atcaataaac aaattgctaa agtactcatg gTTTTtctt gaaataattg 480  
caaagtcaat ggccacatac ttgttggag agaataagat taagcttccc cgaggccaga 540  
gatttcccga gacatatcat catgtcttac attcactgct tcttgcaata attccccatg 600  
tgactattcg gtatgcggag attcccgatg agtccagaaa tgtgaactat agtttggcta 660  
gcttcctgaa gcgctgtttg aactaatgg atagaggatt tattttcaat ttaataaatg 720  
actatatatc tggattcagc cccaaagatc ctaaggttct ggctgaatac aagtttgaat 780  
ttctgcaaac aatttgcaat cacgaacatt acattcctct gaacttgcca atggcatttg 840  
caaaacctaa actgcagcgg gttcaagatt caaatcttga atacagttta tcagatgagt 900  
attgcaagca tcacttcttg gttggtctac ttctgaggga aacttccatt gctcttcagg 960  
acaattatga gatcagatat acagctatct ctgttataaa gaatcttttg ataaaacatg 1020  
catttgacac aagataccag cacaagaacc aacaagccaa aatagcaca tttgtacctc 1080  
cctttgttgg actacttttg gaaaatatac agcgattagc aggtcgagat acctgtatt 1140  
cttgtgcagc catgcctaatt tctgcatcca gagatgagtt tccatgtggc tttacttcac 1200  
ctgccaatag agggagtctg agcactgaca aagacaccgc ttatgggtct tttcaaatg 1260  
gacatggaat taagagagaa gattcaagag gttccctcat cccagaagga gcaacaggat 1320  
ttccagatca gggcaacact ggtgaaaata cccgacagag ttctacaagg agtagtgtat 1380  
cccagtataa cgcctggat cagtatgaaa tcagaagcct cctgatgtgc tacctgtata 1440  
tagtaaaaat gatttcagaa gatactctct taacttactg gaataaagta tcacctcagg 1500  
agtcataaa cattcttata cttttagaag tatgcttggt tcactttaga tatatgggga 1560  
aaagaaacat agcaaggggtg catgatgcct ggctgtcaaa acacttcgga atagaccgaa 1620  
aatcgcaaac catgcctgct cttcgaaaca gatcaggagt aatgcaggcc cggcttcagc 1680  
atcttagtag cctagaaagt tcatttacac ttaatcacag ttctacaaca actgaagcag 1740  
acattttcca ccaggcactt cttgaaggca atacagctac tgaagtttcc ctaacagtac 1800  
tagacaccat atcatTTTT actcagtgtc tcaagaccca acttttaa atgatggcc 1860  
ataaccatt aatgaaaaaa gtgtttgata tacatcttgc ttttcttaa aatggacaat 1920  
ctgaagtgtc gctgaaacat gtatttgcct cactgagagc tttcatcagt aagtttcctt 1980  
cagcattttt caaaggaaga gtaaacaatgt gtgctgcatt ttgctatgag gttttaagat 2040  
gctgcacatc gaagattagc tcaaccagga atgaagcatc tgcacttttg tatcttttga 2100

tgagaaacaa ctttgagtat accaaaagga aaaccttttt gaggacacat ctacagataa 2160  
taattgctgt aagccaactg atagctgatg tagcactaag cggaggatca agatttcagg 2220  
agtcctttatt cattatcaat aattttgcaa atagtgcag acctatgaag gcaactgcct 2280  
ttcccgacaga agtcaaagac ttgaccaaga gaatccgcac tgttcttatg gccactgccc 2340  
aaatgaagga gcatgagaaa gaccctgaaa tgctaattga tctccagtat agcttagcca 2400  
agtcctatgc aagcacccca gagctcagga aaacctggct tgatagcatg gccaagattc 2460  
atgtaaaaaa tggagatttt tcagaggctg cgatgtgtta tgtccatgta gcagctctag 2520  
ttgcagagtt tcttcatcga aaaaaattat ttcctaacgg atgttcagcg ttcaagaaaa 2580  
ttactcccaa tatagatgaa gaaggagcaa tgaaagaaga tgctgggatg atggatgtcc 2640  
attatagtga agaggctctg ctggagttgc tagaacaatg tgtggatggc ttatggaagg 2700  
cagaacgtta tgaaataatt tctgagattt ccaagttgat cgttccaatt tatgagaaac 2760  
gtcgtgagtt tgagaaactt actcaagttt atagaactct tcatggagct tacacaaaaa 2820  
ttctggaagt tatgcataca aaaaagagac ttttaggcac tttcttcaga gttgcctttt 2880  
atggccaatc tttttttgaa gaagaagatg gaaaggagta catctataaa gaaccaaagc 2940  
tcaactggcct ctacagaaatt tccttgagac ttgttaaact ttatggtgaa aagtttggtg 3000  
cggagaatgt caaaataatt caggattcag acaaggtaaa tgccaaagag cttgatccaa 3060  
aatatgctca tatacaagtt acttatgtga agccttactt tgatgacaaa gaactcacag 3120  
aaaggaagac cgagtttgaa agaaatcata atatcagcag atttggtttt gaggcccctt 3180  
acactttatc aggcaaaaaa cagggctgta tagaagaaca gtgcaaacgc cgtacaatct 3240  
tgacaacttc aaactcgttt ccttacgtga agaagaggat tcctattaac tgtgaacagc 3300  
agattaattt aaaaccaatt gatgttgcca ctgatgaaat aaaagataaa actgcagagc 3360  
tgcaaaagct ttgctcctct actgacgtgg acatgattca gctccaactt aaattgcagg 3420  
gctgtgtttc tgtgcaggtc aatgctggtc cattagcata tgcaagagct ttcttaaagt 3480  
acagccaagc tagcaagtat ccacctaaga aagtgcagtg gttgaaagac atgttttagga 3540  
aatttataca agcatgcagc attgcacttg aactaaatga gcggctaatt aaagaagatc 3600  
aagttgagta ccatgaaggg ctaaagtcaa atttcagaga catggtaaaa gaattatctg 3660  
acattatcca tgagcagata ttacaagaag acacaatgca ttctccctgg atgagcaaca 3720  
cattacatgt attttgtgca attagtggta catcaagtga ccgaggttat gggtccccaa 3780  
gatacgctga agtgtgaggc aatgcagatg tacgtgacaa tgagactgac ctttctcagg 3840

aatattttgga gctgtgcaaa tgttaaaatt taaagatttg atatacatgg agtgtttctt 3900  
ctcgacacca aaattttcat gtgttccagc aggggtgctta catatttgta aataagcaac 3960  
ttgaaagtgc ctggaaaatt gcaccactgt gcttggtttg tactttttta ggtaaatacta 4020  
tatgctgaaa agtagagctc aaaaacagta gttcaatttg cttaattatt gcttaaaata 4080  
atggtactat gtaaaattgt ataatggaat acaataaaag gtaaaactt 4129

<210> 1357

<211> 3346

<212> DNA

<213> Homo sapiens

<400> 1357

gagagccgag aaccgcctac tccaggagga aagccccgagg gttgtgggtc ctgctatagc 60  
cagggccaag ctccaggaaa tcgtggccat tcaggggtag tttgcagcct catttgtaac 120  
attattgtgt tgtcctgtgc atttccaatg cattacataa agacatgggtc gcttttagga 180  
gaaatgtctg aaaaactaag aagatgcaga aaggaactga ctgcagccat tgaccggggcc 240  
tttgaaggag ttagttattc ccaggagtgc acaggccagc agaggctgga actgagcgcc 300  
gcgccgtctt ctttctcgct gcccggtgcac aggctcctct gcagaagaca tcctctggca 360  
gcctgtctctt ctgctgctcc ttttgctgct gtcccatgtg ctcttgagaa tgagaaccct 420  
gcctttgcaa caaacatgc cccggtaaat gcaaaaccac atgctctgtg ccccgagaga 480  
aaacctctaa ccagcaagga aaatgtattg atgcattcct ccattttggc acctgaaaga 540  
gagtcttgga gaactgcagg agaggggggaa aactggagaa aagaaaattt aaggaaagat 600  
atggagagag atttgaaggc tgactcaaac atgccactca acaattctag ccaagagggtc 660  
acaaaggatc tgcttgatat gattgacat acaagcatcc gaactattga agaattggct 720  
ggaaaaatag aatttgaaaa cgaattgaac cacatgtgtg gtcattgcca agattcaccc 780  
ttcaaagagg aagcctgggc cctgctcatg gacaagagcc ctgagaaggc cacagatgct 840  
gaccctggca gcctcaaaca ggcttttgat gatcataata ttgttgagac tgttctggac 900  
ttggaagagg actacaatgt gatgacgtct tttaaatacc aaattgagta aggacagtta 960

tctaagcttt gattccttac agcaggaggc tgcccttgag cctgagcaga agcagctaca 1020  
atggccgtca ggggccacat ttctcaaaag gttggcagaa cctgaattac cagacccttt 1080  
ttaaatecca gttgtgtccc tttttaagct gtgagaccag ttttttgaat tccattgctt 1140  
tgaaatgttt cctattactg attttttttt tttaactttc cttgacatct tgaatgtgtt 1200  
tttttgattg atgttcaata taccaggtac ccatggtagg tgtgggtcat gggcctctgc 1260  
tgtgtctctt agtgttcttt tccacgggcc cctaaaaaag tacaggagtg gccaggcaca 1320  
gtggctcacg tctgtaatcc cagcactttg ggaggccaag gcgagtggat cacttgaggt 1380  
taggagtttg agaccagcct ggccaacatg gcgaaacccc atctccacta aaaatacaaa 1440  
aattagccag gagtgggtgt gtgcacctgt agtcccagct actttggagg ctgaggtagg 1500  
agaattgctt gaacctggag gcggagggtt caatgagccg agatggcacc gctcccctcc 1560  
atcctgagtg acagagcaag actctgtctc aaaaaataa taatttagct ggtcatggtg 1620  
gttcgtgcct gtagttccag ctacttgggt agggactgag gcgaaaggat cacttgaggc 1680  
caggaggcag aggttgcagt gagctgagat cacgccactg cactccagca tgagtacag 1740  
agtgagaccc tgtctcaaaa aaaaaaagaa aaaaaaaggg aagaaaggaa actgaatctc 1800  
agggaagtgc ccacctctg agctaataag aggaaggaat atgggggtga ggcagagctg 1860  
gcaaaaggct gttttttgtt ttgattgttt ttaaagacca agtgaagtat agtataagaa 1920  
gtggggaagg agtggaacaa ggagttagat ctgtaactgt gagtagtcaa ttgagataac 1980  
tcaatacctt tggacctgat tgtttttaaa gactgagggt agtataagaa gaggggaagg 2040  
agtagaacia ggagttagat ctgaaactgt gagtagtcaa ttgagataac tcaactacctt 2100  
tggaccagcc agggctgttt ataagtgtta aagcccgaac aaaccaaaga gttggggaga 2160  
aaggcctaac taacagctga gtgattgtct aacagactgt cttttaggcc agtgactctg 2220  
gcatagggca ggctgcatag ccagcaacat cccttaccac aggtctagtg attcctctgg 2280  
gctcaaagt gtgaggtaca caccactcc ttagcagagg ttggcctggc acctgctggt 2340  
gccccaaaga ctatggcatg gttagacctt ggccacttga ttgcatgtgc ctccccagt 2400  
ggcgtgccct ggttcccaac cagttgtggc cactgccact gccctgcctg gggcaggagt 2460  
tgaggttaag gctaactaca ggctccttcc aggccaccta ccactcagac cctgcaggag 2520  
gtagcaciaa gcattcacag cctgtggagt cagaggccaa tttcttctcc ctgagcaaga 2580  
agaatggaag caaatgaaaa gtgctcacag tatgctcaac tgcccctgct caggtgaaga 2640  
atagcctgtc tggatggaga gatgtcaggc tacttgatac tcagaaaaac aggtctcaaa 2700

acagtgcctt ccaaataata catgtggatg tggacactct tctatagacg aggtggagct 2760  
 taattcctgt ccttaccccc atattccac ctcattacca cccittgaag gtgaactaga 2820  
 cttaatgata cttcccacga ctaaagtagg gaaagggaaa agtcacaaac ttatagtggg 2880  
 gaagcctggc agacacctaa ccaagtgatg tcatgtatat gtcatgagag ggggtgcatca 2940  
 cttccctggc attcctacca aaaacccaaa ttcccagtgt atgatcttga gacaaatgtt 3000  
 agacaaatcc agacgtgggg tacattctac aagatacctg gccagaactc aagactgttg 3060  
 agatggccgg gtgcagtggc tcatgcctat aatccccgac actttgggag gctgaggcgg 3120  
 gcagatcact tgaggtcaga agttcgagac cagcctggca aacatggtga aaccccatct 3180  
 ctgctaaaaa tacaaaaatt agccaggcat catggcatgt gcctttagtc atagctacac 3240  
 aggaggctga ggcaggagaa ttgcttgaac ccaggagggtg gaggttgcag tgagccaaga 3300  
 tcgcatcact gcactccagc ctgggcaaca agcaagactc cacctc 3346

<210> 1358

<211> 4323

<212> DNA

<213> Homo sapiens

<400> 1358

catatttact ttgacttaga tgttttggga gtacagtagt gatctttata tagcttgtaa 60  
 ttcaaaatat gcagaattta taaagaacat taaaatatca gataaaatat ttttagtta 120  
 gattaatagc ttattgcaaa ttatgtatac acatgtaaaa ataattgtgt atcataaatc 180  
 agtgctgttt aaatgatgga attttaaaat gtagaattga tcacctgcca cctctgattt 240  
 ttcatacagc atagagagag ttcactttca tctggccatt cactctactt tgtgtctcac 300  
 tcagtggttc tttttgcgtt tttgtttgag acaagtttca ctttgtctcc caggctggag 360  
 agcagtggca tcattatagc tcaactgcatt gtcaaactct tgagttcaag caccagcta 420  
 atttttatct ttttttagt agagatggaa tcttgctgtg ttgcccaggc tggctttgaa 480  
 ctctgacct ctagcagtcc tccagcctca gtggttctta acatacagat cataatgtcc 540  
 tttgacaata tgaagaagga tatgattccc ttcagaaaaa tgcctagtgc tctgctccag 600

cattttatat aataattgac ctggcttttt aaaattgcac agtgtaaatt agtgtttctt 660  
gaatgaaatt cgtaagggtt tctttcatcc atttactaag cttttattta tagaggctcag 720  
ggaacaaagg ttatctgata acatccttac ttcctagata aggctgaaaa cctaagataa 780  
tttagtaact ttgcacaaag tcgctcataa gcatgaaaat tgaacttagc acatctacta 840  
atatgaaacc aaaccaggct aatcagagtg ttgggtatth actgcaaata cccgccaagt 900  
cagtcgatcc tgcttatctg ggaatttacc tactgtttcc attcctttca ctgatgacat 960  
ttcttttttc ttgagatggc gtctcgcttt gtcacccagg ctggagtgga gtggcgtgat 1020  
cttggctcac tgcaacctcc gcctcccggg ttcaagcagt tctcctgcct cagcctccca 1080  
agtagctggg attataggca tgtgccaaca cgccagcta ctttttgtat ttttagtagc 1140  
gatggggttt catcatgttg gccaggctcg aactcttgac ctcaagcca cctctgcctc 1200  
cctgcaaaaa ggggtgggat tataggcatg agctactatg cccagtccac tgatggatga 1260  
catttctaata aagtggcaaa tagtatcatt ctgcttattg tggaagggtta gtaacaaacc 1320  
atcctattaa atggatgtgt tatatttatt ttgcgttctc ttcctcaac agatggagca 1380  
gcatattgta tgggacgtat gaattctgac tgttggtact tatatactct ggatttccca 1440  
gagagtcggg taatcagtca gccagatcaa accttggaaa ttctgatgag tgagcttgac 1500  
ccagcagtta tggaccagtt ctacatgaaa gatggtgtta ctgcaaagga tgtcactcgt 1560  
gtaagcattt ttagtaataa ttgttgcctg actcttctgc gtggggacta aattttatth 1620  
ttcattctgt aacttttaag ttcagggtta caagtgctag tttgttacat aggtaaactt 1680  
gtgtcatggg ggthtgcgt acacagtatt tcgtcaccca ggtgttaagc ctagtaccca 1740  
ttagttatth ttcctgggtc tctcccttct cccaccctgg gactaaatth tggactcaat 1800  
tgaagtttat ttgtcaaacc cttgttaaac tcggtctth tccccccag gagagtggaa 1860  
ttcgtgacct gataccaggt tctgtcattg atgccacaat gttcaatcct tgtgggtatt 1920  
cgatgaatgg aatgaaatcg gatggaactt attggactat tcacatcact ccagaaccag 1980  
aattttctta tgtagctth gaaacaaact taagtcagac ctcctatgat gacctgatca 2040  
ggaaagtgtt agaagtcttc aagccaggaa aatttgtgac caccttgth gttaatcaga 2100  
gttctaaatg tcgcacagtg cttgcttcgc cccagaagat tgaaggtth aagcgtcttg 2160  
attgccagag tgctatgttc aatgattaca atthtghth taccagthth gctaagaagc 2220  
agcaacaaca gcagagttga ttaagaaaaa tgaagaaaaa acgcaaaaag agaacacatg 2280  
tagaaggtgg tggatgctth ctagatgtcg atgctggggg cagtgctth cataaccacc 2340

actgtgtagt tgcagaaagc cctagatgta atgatagtgt aatcattttg aattgtatgc 2400  
attattatat caaggagtta gatattctgc atgaatgctc tcttctgtgt ttaggtattc 2460  
tctgccactc ttgctgtgaa attgaagtgc atgtagaaaa aaccttttac tatatgaaac 2520  
tttacaacac ttgtgaaagc aactcaattt ggttttatgca cagtgtataa tttctccaag 2580  
tatcatccaa aattccccac agacaaggct ttcgtcctca ttaggtgttg gcctcagcct 2640  
aacctcttag gactgttcta ttaaactgct gccagaattt tacatccagt tacctccact 2700  
ttctagaaca tattctttac taatgttatt gaaaccaatt tctacttcat actgatgttt 2760  
ttggaaacag caattaaagt ttttcttcca tgagttgagt ccttaagaaa atgattccag 2820  
ttactcattt tgcataattg ctattttaac attattggac cctgcattta tagtcctttg 2880  
atttcttccc tctccctggg gtctccccc agaccccaaa taaagcaata cactgttaac 2940  
actgtggggt tatatactaa ttctataccc cagatgggga atgggggaga tggtccttgg 3000  
gcttaatat ctttaaagg catgggaatt tagcctctct tttattgtaa tgtgctcttt 3060  
tggaataatag ttggtttagc gggaagacc agagtgttag attgagatta ggggtgtactg 3120  
gctgaactgt ggaaaacata caattctgtg ttcctcagta aatgagatta gcgtctaattg 3180  
agtagcacc ctttactaac ttagtagtag tataaaatca tttttattta gttaattacc 3240  
agagagattt agcataattt tgttctggat tcagtaaatac aagtcagctt ggatcattca 3300  
ccttaacttt tcttttagca gccatttcca ctagtttcca ttaagtagtg ttctataaac 3360  
tttgatccaa agcagaatca atgtcttttc catctcgtga cttaaagttc tgtgactgtg 3420  
atgcatgtga gtgttccgac ttcattctgtt cctcttaact acggtgtttc cttaccatg 3480  
gcattcatag gatgaaatga atgactgccc agaatagagaa tttgtccaga ttattcagat 3540  
aaacatcata aagcagaata cattataaat aagtagaata tgaataata gaataataaa 3600  
attccaaaat actcaatggg aaatgactag taatataggc tttcaagagt tggtagcttt 3660  
tagctatatt tgcagattct ctgggatttt aaggaaactga gaaaacagca aagttgacta 3720  
aattttatat ttcttgcct ctaaataatt tgataatttc tggattgatg cagtgtgtt 3780  
tttgttcctt ccgtatttat aaatgaaaca cttttttta gtgtttctaa acctaaaac 3840  
tacttgggtt gaaatcaagt ggttggaaaca ctgtttgact tttatttgaa gcatgttgtt 3900  
gattgaaaat ttcattgagg aagttttcaa tcagtgtgat cagtttgatt ctgtaatgag 3960  
cacagcacct aatattttga ggagctctgt tttgaggacc aatgcttaag gtggactttg 4020  
ttcgtaaaca atatcccaat agatttgttg acttgaggtc tggtttggtt ttgtttttgt 4080

tttgttttgt tttgtttcca atagaattaa gaattctaata gttgaaaaac tgcacaaatt 4140  
tttatgggac aaagcctaga aaagagaaag gtagtttgaa tcataatcta aatcatcgta 4200  
tgatagaaga gggaaagttt tgggtgccata atttctcctt tcactggtgt tggacttaaa 4260  
tcagttgaaa tgtatttctg taccacaatt tacgcttcaa taaaagtta attgtctagt 4320  
gac 4323

<210> 1359

<211> 3510

<212> DNA

<213> Homo sapiens

<400> 1359

tcacgcggcg ggggctctcg tgtgaggacg ggagcagagc caaatgcacc agctgtcagc 60  
cagactgaag gtgaaggag ccaacaggct catgtctgaa tacaaggctc tcagcccacc 120  
cctggaggca gtatgttagg attcttccga acagagaatc tggggtctgt tctaaagggg 180  
cctagagcat ggccatggtc actgtatctt cagaaatgtt taaagttttg tctttcttgg 240  
tcattggaag aggcaaaaaa ggaaaaaaa aaaaagcagg aatgaggga gactcaattt 300  
tgcacattct ctctgtgttc ccctgaggat aaattggaaa cgaaatagga atacaggact 360  
tttaggtatg agccagttca gtgtgttaag acacttgctt tctaaccctt tgctttttgg 420  
cagtaatcgg attgctggac gacttgtctt ttaagacctc tctaagtact gatgataaaa 480  
acagcccttc aacagggaaa ataaccttcc attctatttt ctaccgagca gagaggaaaag 540  
aacatcagct gagccaggag ggttatcaag ttgcaggatg accctgttta tcttgtgaga 600  
ctcagtttgc tttaaatgtt ttcagagatc atatggttgc ttttgtatat acttttgttt 660  
gtataacttg gaatcatttt tctgctaate ttttgatttt aaatatgtct ctggtatgta 720  
gtacaagggt tgagggtttt tttttttttg tagtttgaaa catagcattt ttaaagataa 780  
ttttgttcat ttacatttat tgttatgttt tactagatct gctgtctgtt ttgcttgttt 840  
ttgtttcatt ataatttgat ttcctaagta cttgtggttt taggttgacc tgtgcctagc 900  
tccatgtatc tttcatttga gatttcttag accttatcaa acttattttt ctttttttga 960

gatggaatct cgctctgttg ccaggctgga gtgcagtggc gccatcttgg ctactgcca 1020  
tttctgcctc ccaggttcaa gccattctcc tgccttagcc tcctgagtag ctgggattac 1080  
aggctcgcgc cactacaccc agctgatttt tatattttta gtagattagg gttttcaccg 1140  
tgttggccag gctggtctcg atctctgac ctcatgatct gctctctca gcctcccaaa 1200  
gtgctgggat tacaggcatg agccaccatc catggctctc aaacttattt ttcttaatct 1260  
aaatcttcta atagctaacc gactggaact tcaagtgttc ttatttctgt agattgccat 1320  
atatagctat caciaagcag aggaactttg gacttttctt ctataagcat cttaagctgt 1380  
tggttctctc cttctgaaag ctctctgccc ctccctcatg ccgtggggct cagggttagag 1440  
aaatacatta attctcaatt ctcttttctg gctcttacct ccaacttgtg ttctttcatt 1500  
gcacggatca catacactta gtaacacact gtagtggggg gggaacagaa aggatctcaa 1560  
gggtgttctg tcattctggg caaatctctc caagcccagc ccatgagtct tatcttcaaa 1620  
aagtaaaata aaataaagt aatatactga gggctgaacg agaacatgag tgaggctgtt 1680  
cctggcacac atcagctgct tgataaaaat taacctcccg ttctccactt tgttagtgtt 1740  
ctcagtggct ttgcgtgcca aatgcattgt ctttttattg taaagcttga cttcgggatg 1800  
ctcctgggct catcattctt ggcaatatgg cgactttttt gttttttatt tttttaattg 1860  
tggtggaatt catttaacat aaaatgaacc tttttatgtt tatttattta ttttgagaca 1920  
gatctcacc tgtcgcccag gctggagtgc agtggcgcgga tcttggctca ctgcaacgtc 1980  
cgctcccg gttcaagcga ttctctgccc tcagcctccc cagtagctgg gattgcaggc 2040  
gcccgccacc acgcccggct gatTTTTgtg gtttttagtag agatgggggt ccgccatgtt 2100  
ggccaggctg gtctcgaact cctgacctca ggtgatctgc ctgcctcggc ctccaaagtg 2160  
ctgggatgac gggcgtgagc caccgcacct ggcctgaacc attttaaagt gtacaattca 2220  
gtggctttca gaacattcac agtgttgtgc aagccctacc tctgtctggt tccaaaactt 2280  
tttcatcacc ccaaaaggag atggtggctc tttcaagacg ccagctttgg catcaactgg 2340  
accttctggt tgtctgactt cggacaagca ttgtaatttc cagcctttgc ttctcacct 2400  
ttaaaatgga aataatgttg atcaccttac gggccttttt aaaaagaact tgattgaggt 2460  
atgatgtatg tacctcaaaa tcaagtcac ctaagtgtac tttttcagta ctttttcgtg 2520  
aatttgtgga gttgtgcacc cattaccaca atcccaattt tagaacgtct ctatcatttc 2580  
ctgttcccat ctccagctct gtgtaaccac gagtctgctt tctgtctgta tgggtttgcc 2640  
tttttagac atttatacca atggcagctg acagtacatg gtcttcatgc ctggcttctt 2700

tcactcagca tcctgtttcc gaggttcatc catgtagttg cgtgtggcag cgcttcattc 2760  
 ctctctgtgg ctgaggaata ttccattgtg tggacggacc gtgttttgat aatccactcc 2820  
 tctgttgatg gacatagggg ttgcttccac cttccatgat tcatatttac tactgtgtgt 2880  
 cattctcagt actgtggcac tgtgctggta cacataagt ctaataatt gtgagccacc 2940  
 gcgcctggcc taatactgct ttattacaac gttatctgtg ggtcggatcc ttttatattg 3000  
 gttaacagat gaccctgact cagaataatc tttttcaatg gctttttgag ggaagcttgt 3060  
 gaagtcttgg tgaatcttct ttttcacttc actttcagt agctgaaagt aaccaaacta 3120  
 aatacatgta ttgtgtaaag ggacaggaca agacagcctt aaaaaattga atatagttgg 3180  
 tgagacaact cagaagtaca ggtttgagca tcccttattc aaaatgcttg agaagtgttt 3240  
 tgggttctgg aatatttgca ttaatgcttg ccagttgagc atcccaggtc cggaatcca 3300  
 cagtgtcca atgagccttt cccctgagtg tcacatctgt attggcactc aaaaagtctc 3360  
 atattttgga gcatttcaga tttcagattt gggatgcttc atctatattg acagctgcaa 3420  
 gaacagaaag gaagaagaga ttatttttgt gggagaacag tttctcccat agtgtttcct 3480  
 gtggaatgct agtgtctcat aaagtcttct 3510

<210> 1360

<211> 3479

<212> DNA

<213> Homo sapiens

<400> 1360

aatgctgatg ccaggacctt gtcctgccag gaagcctctg attagggtg tgaaccaact 60  
 tccttttcac atctgcaagg acacttggag gcaactgccc aaggccactc tgaggagggt 120  
 tgaatgttct ttattaaaag gactgaggat catgtgtgtt ggtgggcctt ggactctgct 180  
 ctaagacaca tggaggcaac cactcaaggc cactctgaga agggttgaac gtgctttaaa 240  
 ttaaaaggac tgaggatcat gtgtgttggg gtgtcttggc ctctgctcta agactcatgg 300  
 aggcaaccac tcaaggtcac tctgagaagg gtgaacgtg cttattaaa aggactgagg 360  
 atcatgtgtg ttggtgtgtc ccggagtctg ctctaagagc tgcacggggg cttggatcaa 420

tgctgaatc cagtgttcct gagtgcagag catctttgct ctgggtgagc tttgaccatc 480  
ctggagaaga aggctgctgc gggggtggga caaagccaag accaatgccc agcggccaag 540  
gccagccaga tggctctgtg ctggcagcca gtgtacacag attttacctg aaggaaaatg 600  
tcacgttttc cacagacaac tgaagaaaaa gagctctttg gattacccta attgtgattt 660  
actcattgga accactgttt tggattgtcc aaaattaagt ctcaaagctt aaatatgagg 720  
cttcagggag ttatcctgaa atcagtgcctt ggtatcttct tgttttttgc ttgtttttta 780  
aaaccttaat tctcatattt ttctgtcata tttctcagtg cctgggtacat tatcaccatt 840  
aatccatgcc agttatgtac agttttgcat gtttgttttt tattttactc ttttctctcc 900  
ttcattccct attcctgttc ccccataggt gccagtccta atgtatttga tatctgtcct 960  
tagagcctcc gtatctgtga agactagagt catgcacttc atcacatttc agtaacgatg 1020  
ggccgcatgt accacagtcc catgagatga tagagggtgca gaaaaattcc tgtcatctag 1080  
tgacatcgta gccatcataa catcacaaca cgactctcat ttgtggtgac cctgggtgtac 1140  
acaaacctac tgtactgcca gttgtataaa agtctagcac atccagctac gcacagtaca 1200  
tacttgaaaa ttataataaa tgaccatggt actggtttat gtaattacta tattatactt 1260  
tttaatcatt attttagagt gtacaacttc tacttgtaaa aaaaaaaaaa gttaactgta 1320  
aaacagcctc aggcaggccc ttcagtagga attccagaag aaggcactgt tgccttagga 1380  
gatgacagct ccatgtgtgt tactgccctg atgaccctcc gtgggtacaa gatgtggagc 1440  
tggtactacag tgatattgaa gatctcgacc ctgtaggcct aggctaaggt gtggctgtgt 1500  
cttgatTTTT agcaaaaatg ttttaaaagt aaaaatgtta aaaatagaaa acagtttata 1560  
gaataaggat ataaagaaaa tttttgtac agctgtataa ttttttttg tctttctttt 1620  
cctttttctt tttttttttt tgagacggag tcttgtcttg tcgccagct ggagtgcagt 1680  
ggtgtgatct cggctcactg caacctctgc ctctgggggt caagcgactc ttctgcctca 1740  
gcctcctgag tggctgggac taccggcaag tgccaccatg cctggctaatt ttttgtattt 1800  
tttgtggaga ttttcaccat cttggccagg ctggtcttga actcctgacc tggatgacca 1860  
cccgcttgg cctcccaaag tgggtggggtt acaggcgtga actacagggc ctggcctgtt 1920  
tgtgttttaa gctaagtgtt gttaggagtc aaaaagttaa aaaataaaag ttgctaaagt 1980  
aaaaaagtta cagtcagcaa aagctaattt attaataag aaagaaatgt atgttttgat 2040  
caatttagtg tagcctaagt gtccagtgtt tatagtctac aggagtgtac aggaacgtcc 2100  
taggtcttca catcctctca ccactcactc attgactcac tcaccagag tagcttccag 2160

acctgcaagc tccattcatg gtaactcccc tatacagggtg ttacagtact taaaatttta 2220  
tatacctatit ttactgtagg ttgtctctgt ctagatatat ttggatacac acatacttac 2280  
caatgtgtta cagttgcctg cagcactcag tacagtaaca tgctgcacag ctttgtaacc 2340  
tagaaacaac aggctacacc tatagcctct gtgtagtagg ctgtgccatc tgggtttgtg 2400  
ttctacaacg ttgcattcta caatgttcac acaaggatga aatcgccata ggacacattt 2460  
ctcagaatgc ttctcattg tcaagcaatg catgactgta tatagaattg ttcataaata 2520  
ctgtgttttt catccatgta aatggcatgc catttctacc tatccacgtc tgcacaccag 2580  
ctcatgcccc tcattcatgc tcctttctgc tgctcaccgc tccacagctg gcagccctg 2640  
cattccatcc atccattccc ccaaacatgg gcatgttgct atcagcaggg agctgtgatg 2700  
gaccctcac aggttcctct tattcctcgt gcaagccttt ccctgggaag ttctccag 2760  
cattgctggt cagggggaac acacactcac atcttcccta aatgctacca gtgctatggt 2820  
gttatcagaa actttattta tttatttttt gccaatatga tagctatcaa gctaccccat 2880  
ctctactaaa aatacaaat taggccttta gtagaaaccc tgtctctagt aaaaatacaa 2940  
aaattagctg ggcatggtgg cacacacctg taataccagc tacttggtgg ctgaggcagg 3000  
agaattgctt gaaccagga ggcagaagct gcagtgagcc aagattgcac cactgcactc 3060  
tagcctgggc aacagagaac ctgtcttaaa aacaaaaaca aaaaaaatgg cacaggtctg 3120  
attattagga agctgagggtt cttttttata cttagtattc actgaagtgt gaattacctt 3180  
tcatgtctc taaacatacc aacaaggagg ctggagttag gacttatgtt agagccagcc 3240  
tgctggggc acagcctggc cctgccattt attgactgtg tgactttgag aaagcttctt 3300  
catgtaactc tatcttagct tccctgcctg taataagtaa aaacagcaac tacctcatag 3360  
atttgtaaag attacataaa ataatacatg caatgcatgg caaacgacag tcaacgaatg 3420  
ttattattat attaactatt gccatattat aaatataaat aaatataaat gatataaac 3479

<210> 1361

<211> 3058

<212> DNA

<213> Homo sapiens

&lt;400&gt; 1361

actagaggca	gcagccagcc	agcccagccc	ttctctgggtg	cctgccggtg	tggtcctctc	60
ccagagactg	gggggccttc	atctgcccc	tgaggaaaag	aggagtggag	gaccatggaa	120
agggatccag	aaaaagaagg	aaacaccaag	tcccaggggc	atgagctgga	agggagggct	180
gctcctccca	ggggaggctg	gggactgaga	gctgtcccca	agagtggaaa	aggaggggagc	240
tgggcaagac	ccagcattgt	tagtaaccag	ctctgtggtc	ttgacttgac	ctcactgatt	300
ctcagtctcc	tcacttgga	aaggggcaaaa	cagccacgtg	caggccgtgg	tgggcacccg	360
ggctgtctgc	agatagcttg	gctcattgtt	ggtcctcagt	acgcagccct	cgtagccaag	420
cagcttgggc	ctacactctg	ggcccagggg	agtggctgtc	gctggcatcc	cctggaataa	480
catgctccgg	gggtcaaaga	ttccttagct	ggaaaggctc	aggaggagac	tcccgtctctg	540
ctccctcctg	caccagecgt	gtgccccccg	ccggccaggc	agagccatcc	gatgccgctg	600
ggccgcccac	tgaggatctg	ctggctgcag	cgggtggaag	gacctgctcg	gctggaacgt	660
tttttttttt	ttttccctcc	caggcgacgt	ccgatgggtg	tgtcgggcag	gaggtgatat	720
ttgacaggct	gcgcgcgggc	gagctgccgc	ggagcacccg	gcaggggctg	acagcatggc	780
ctcgcccgac	ccgcccgcga	ccagctacgc	cccgtccgac	gtgccctcgg	gggtcgcgct	840
gttcctcacc	atccctttcg	ccttcttctt	gcccagagctg	atatttgggt	tcttgggtctg	900
gaccatggta	gccgccaccc	acatagtata	ccccttgctg	caaggatggg	tgatgtatgt	960
ctcgctcacc	tcgtttctca	tctccttgat	gttcctgttg	tcttacttgt	ttggatttta	1020
caaaagattt	gaatcctgga	gagttctgga	cagcctgtac	cacgggacca	ctggcatcct	1080
gtacatgagc	gctgccgtcc	tacaagtaca	tgccacgatt	gtttctgaga	aactgctgga	1140
ccaagaatt	tactacatta	attcggcagc	ctcgttcttc	gccttcacg	ccacgtgct	1200
ctacattctc	catgccttca	gcatttatta	ccactgatgc	acaggcgcca	ggccaagggg	1260
gaaatgctct	ttgaaagctc	caattattgg	tccccaaaag	cagcttccaa	cgtttgccat	1320
ctggatgaca	aacggaagat	ccactaaaac	gtccacggga	ttaacagaac	gtccttgag	1380
actgagcgat	gacaccacac	tttgtttgga	catttaaatt	cactctgctg	aataggagga	1440
agcttttctt	tttcttgga	aaacaactgt	ctcttggaat	tatctgacca	tgaacttgct	1500
cttctagaca	actcacatca	aagccctcac	tccactaatg	gagaatccta	gccccactaa	1560
tgccaagtct	gtttggggat	tttgccctcag	ctatgggctt	ccctagagta	gggtctagggg	1620
aatactcagt	ctgatctttt	ttttgtttgt	tttattttgt	tttttttgag	acggagtctc	1680

gctcttcctc caaggctgga gtgcagtgac gcgatctcca ctactgcag gctccgcctc 1740  
ccgggttccc gccattctcc tgcctcagcc tcccagagtag ccgggactac aggcgcccac 1800  
caccatgccc ggctaattta gttgtatttt tagtagagat ggggtttcac cgtattagcc 1860  
aggatgggtc cgatctcctg acctcgtgat ccgcccgcct cggcctccca aagtgtgagg 1920  
attacaggcg tgagccaccg tgcccggcct gattctctta aaattgaaga ggtgttgcca 1980  
aggccttcag atctaacgca gatgcataga ccttgttctt ggtacttggt cagcctgtgc 2040  
tggggagccg tgggtcccgag ttccctggga ggctgacagg gtcaagccac cctgcccacc 2100  
accctcccac ttccctccc ctttctctc cagcattagg attcaaggga aatctgcatg 2160  
aagccaattt tgagggtaga cgtgtgggga aaataaatca ttatacagta agacctgggg 2220  
cttgaggggt ggggaatggg gagggaaggg catagcctgc tcctccatga gtctgacatc 2280  
tcggaaactg agcagctgcc ggacgcctgg gtcaggaatc caagaccca cctcttaagg 2340  
actggttctt cagaaagcac cctcaggga aaaggtgaaa acattacatc cgtggattct 2400  
cctgccacaa ccgcattgga agaaaaggct gccgcaacat ctgagcgagg agtgaaggac 2460  
ccatgtcca ggaaccgcgc tgcgccacct gcactaccc ccctcacatt ctcttaagca 2520  
cccgggtggc ctccgaggcc tggcggaatg gtggtgcca cggggttggg caagggtca 2580  
ccaggacctc aacgggcaaa gttgtgcaca ctaaaatc aaatcaagg gcttggtttt 2640  
aaagtaaatg tttttctaaa gaaagctgtg ttcttctgtt gaccagacg aatagggcac 2700  
agccctgtaa ctgcacgtgc cttctgtcat tgggaatgaa ataaattatt acgagaaagg 2760  
gacttgcctt aactggtttg aggccttaca gttttgtatc tacattttc ccctcctggg 2820  
gtttgcgggg acaggacag aactacagga gtcattggga agaaaattct ggcttcacta 2880  
ctgtcactg ctactttct gatcactctg atactttttt ttttttttt ttttgcaacc 2940  
tgatacctg aaaagcttct atgtgtctct cttttgttg cctggcagct gtctaggatg 3000  
atcactgatt actatttact aagtagccac atgcaaataa aagttgtttg gtaaaatg 3058

&lt;210&gt; 1362

&lt;211&gt; 3751

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 1362

gtagcacta tcattttccc agatgttcat attattttctg caataaatta aaagggagtg 60  
tgtcaaatgc tgtcatgtct gaaattagca ttcataattct tttgcaatgg ggatgatcag 120  
tcgtgtgtac tacatgaacc atgtctgatg gtagcttggt cccactgtca ttttgttttc 180  
tggttgaaga ttaatgagct cagccacaca aacaagagtt cttcattgac ctctacagtc 240  
cctgcctggt tggaaacatc tatggttttg tataaccctt gtcatttaac tgacagtgtt 300  
agaagatata cccctgatgt gttactgtaa ccaagaaagc atgaacgtta ccctttctgg 360  
tgacagcctg ccatgggctg ctgtggctga tacttataga attgttgctc caaaattttg 420  
gtccacttg agctgtccag aagtgtacct gacatttggt tattaccact caccttggat 480  
ctccttacta gtgtaattat ttccacatca atccaggact gaaaggaaaa attttttcac 540  
caggattggc agcctgtagc tctgtgacct cagtcaaccc atcatgttgt gttgtgggcg 600  
gggggcaaga attctttaga gaaccaagtt gcgagaaaga ttccaatcca gtgaaagtaa 660  
aaagtaagaa gacatttaga tagttgctat attttgggaa gatgtcaaaa caggttttta 720  
gggaggaggt atgaggtgtt gtgttgtttt gtttgttttt attcagttgt ataataaata 780  
taacaaatta agtagccaga aggagctgca tgtaaattag caccactttt aaatgtcaac 840  
aataaatttg aggtgagctt cctgggtgat gccaacattt aaatgtcttt ctaaccgtat 900  
atgttttaaa tgggtgagaga actatagcaa aaatggaaac ataatgccct cgtcgttttt 960  
tgattttagg ataagtttct ctctcaaatt ttggccttac gtgtccatac tgaggggttg 1020  
tatgcatatt agtacaaggc tgacttttac tgtggtaaaa tacacataac atatagttta 1080  
tattttaaca attttttttt tgagacggag tttcactctt tttgctcagg ctgcagtgca 1140  
gtggcacaat ctcggtcac tgcaacctct acctcccagg ttcaagcgat tctcctgcct 1200  
cagcctcccg agtagccggg attacaggtg cccaccacta cgctcgacta attttttgtg 1260  
tttttagtag aaacgggggt tcaccattta gccaggctga tctggactcc tgaccttggg 1320  
cgatccgcct acctcgcat cccaaagtgc tgggattacg ggtgtgagcc actgcgcccc 1380  
gccctaacia tttttaagt acagtgcac taagcatatt cacactgttg tgcaaccctc 1440  
accacatcc acctcagaa ctttttaaaa tctccaagac tgactttttt tcaaagcagg 1500  
caactttaat tccctacct gtatctggat tccttttctt tttcatgcta tcttttcac 1560  
atacctcttc taatctgagt atttctctg ggcttaaaag agcctcagtg gagaagtaca 1620

acctaagagg gagttaggta caacctagga gggagtcagg aggagagagt taggttagtt 1680  
agtacaacct aagagggagt taaatggatc aggaaaatcg tgttttatct ccaaagtaaa 1740  
atgataacta tgggtggctt ctgggctcaa tttagaatat tatcattgaa aagtccccaa 1800  
gaaactatta attcagagcc accctgggtga gttgaatttc ttgaatgtct tcatgggtctt 1860  
gaaccaaagt catttccacc caagggagag tcaggtgaaa gtccccaggg ccctctctag 1920  
gggaccggag acctccagac taagctgggtg gaggatgggc tcaacctcca tgagagaaga 1980  
gcagccagga tcagggggca ttaacgttaa ttttcccagg acttttctgc aaatgggtat 2040  
tggatggaaa tatttgttct cagtcagatg agtttctcct attttagtga gaccaaagaa 2100  
agacaatttt aattctgtcc aagctgactt ttttgaatgc tctggaaatg ttggaattcc 2160  
acatcaaagt acgtaactgt tttaaactga taactaacc aatatgtgaa aatatatgca 2220  
agcatgaata aagggttgac taattccaga attagcaata attttctctt aaatagcaaa 2280  
tttctaaagc tgtatgattc tctttgcaag aatgtttttc aactgctta ataagaccag 2340  
ttaatgtgta aaacagaaaa aagtatatat atatatcata tgtcttttca tgcattctgaa 2400  
actttaactg tctatagggt tgcttgtcat agttgaacat tatttaatta acttattgac 2460  
tatatatggg tatacttttc tctatagcca ttcacttttt taaagtttta attatttaat 2520  
tgacaaatta gctattcatt ttccttcaaa tcctgttttt atcacaatgt ccattttaca 2580  
gctagacaca aaatttagtg ggtccaaatt gttcaatcac ttctatgtta tttgttcaga 2640  
atagtggatc tttgcttaat tcacttctgt tttaatccca tcatattcct ttaggccaaag 2700  
aaaaggaaag ctgatttgga ttacatttat gcttaatatc aacatgggtt ataagtggac 2760  
agaaaaacac tcactcacgt attcagccac gtatgggtctg gagtgctctg tagaacagcc 2820  
cgaagtgtac accatgtctc tgcacttgaa gctcatggaa tgtgttggag gagactcaag 2880  
ctccatgtgg gaacagtgtg gcccaagagc cagcatggag gagggtgtg tgagcagact 2940  
gctatagaat gctaaagtta taatcctagc tgggtgtctcg ttctgtttta aaaaatcaaa 3000  
tttctgtatg taattgacgt attggtcctt atagtcagta ccatcaggtc ttagattgtt 3060  
aagtcatttt gctgccacca gaccagttag agtcactcac ttatttgtaa tgattcttgg 3120  
gaagtttagt caagagaata tccttgaata aagaagtaca tgttttaagt attttcatcg 3180  
tagtctagat gggctgtaaa acccatttcc acacgagtat aaatttaaaa cagaaacatc 3240  
aaggtgtcag caatcatgat tttgttttgc ttgttcacaa gtttgaaaag gtgcatgagg 3300  
caccaatcag tgacactgga atgctttaag gatggtttgt gactttacc cattgtgcct 3360

tatcatttgt cagcaaactt actgggccaa acacaaatgg ctgagacact cctggcccat 3420  
ttcttgtcat cgctgccatc cccaaagaca gactctggga aacaacttgg gaactgcttc 3480  
aagtccatgc caggtcatgg cttcgtccgc ctcccagcat gtacctggac ttcctttggg 3540  
tgccggcttt tctgctggac taagagattc atggaaagaa ccccagggca aggtgaggag 3600  
aagcagctgg tacagactga tgacgaagga gaggaccaga aaagctgctt ggggtgtggtg 3660  
gaagtttcag tgtaatgtga ttcctagtag gcacatctgt gactccctta aataaaaagg 3720  
gccagagatg aggggacgcc tggtgaaaat g 3751

<210> 1363

<211> 3309

<212> DNA

<213> Homo sapiens

<400> 1363

gtggctgttt tagtttgcac tcccactggc aatctgtcac gtttctgttg ctctgtgtct 60  
ttgttagcac ttggtgttat cagtgttttt tagttgagcc attctaaca gtctagtggg 120  
atctcattgt ggttttaatt tgcacttccg taatggctaa gaatgctgag tatcgtgttc 180  
ttctttgcc ctcttgtatc ctctgtgaag tttctgttca gatcttttgc acagaaaaag 240  
ctgtatcatg gaaccagtaa aataaccaag gagagggtga ttaaagttct gtttataacc 300  
ctagaagatt cctgccctag ggatatggga tggctgaacg taggacaccg aactggaca 360  
gatgaaatag cagtttatta gtcatgcatg ctcacagccc tgggggtggg gacaccgcat 420  
gccacacggg ggctgcactt gggaacagag tgaaccacga ggggctgttg aaggcaaat 480  
ttgtagtaac aggagggtga gatgaccttg ctccatggg aagatgtgat tggcttgttt 540  
gaataactct gggccggcag ggatgagcag actggagtca gctctccgcc ataaggaggc 600  
tgtttggctt tgggacctga tctgtgggag cagagcttgg aggagacctt gtggttaggc 660  
tatttgaggc cttcttgatt ttaccgacgt caaggcagca cataatattt agtcttcatt 720  
tcaggccaca caagacattc ttatatatct acactctgtg gcactttttg aaaggttttg 780  
tccttagtgt ttagcagttg attatgatgt gccttgtcat ggcttctttt ggatttatct 840

tgtgtgggct ttgcacagat tctttaatct gcctggggtt atgtcatttg ctgaacctag 900  
gaagtittca gccattagtt ctttgatat ttttttcagc attcaccttt tctctcctgt 960  
tattaacctg tggggctctgt gctaattcta ggtagttagt ttcagaatcg aattgcattg 1020  
tgggacacat agctgggtgt cacaagaac tggagaactg cttggtgcaa aagtccatac 1080  
gtttgatgtc agaagtgtt taaacagagg aactgtttcc ttagagattt ttagatactc 1140  
attatttgta atctggatgg gatatcatgt ctttcaccga ttgagataca tttttctaata 1200  
tatgttgttt agacatttag tcacagcctt ctgtgatgga gtgtgtttac acttcaaggt 1260  
taaggttctc tcttctcttc gcttactgtg taaggagttt tatgacagtt gtttttgact 1320  
gaaacttgac attgtcagtg gcctaaagtc atttttctca gcttttcctt tgtgtcccag 1380  
tgctcttgaa ttatgctatc agtcacagtg cccctgcata gcaactgctc ccagttggca 1440  
gtggagtagg gccttgtaaa gagttaaaag atttttgaat catactcctg ttctacaccc 1500  
tcccttttcc catgggtgca catgcattgg gactcactgg ataaaagcaa ttggtgtgaa 1560  
actgaagtag gtaaatatca aagactaagt ttctctgttg tgaaatctac taggaagcta 1620  
atgaaatc attttggaag acatgcttta aataatttga tatattgggt tgttttcttt 1680  
tcttttcttt ttttttttcc agatggagtc ttgctctgtt gccaggctg gagtgcagtg 1740  
gtgccatctt ggctcactgc aagctctgcc tcctgggttc atgccattgt cctgcctcag 1800  
cctcctgagt agctggaact atagacgtcc accatcatac ctggtgaatt tttgtatttt 1860  
tagtagagac ggggttttac catgttagcc aagatgggtc ccatctctg acctcgtgat 1920  
ccaccacct cggcctctta gagtgccttg gattacaggc gtaagccacc actcccggcc 1980  
gatataattgc tttatgaaaa ttatactgga tctgttacag gtacgattga tgtattttat 2040  
ttttaagttg tcaaacattc agttaatgat gtgtgttgta acttttcggg gagggacatt 2100  
tgcagagact gacagatgg atggcattct gaaaagcggg tacagattaa aaaaatttta 2160  
attctgcaga tgatagtgtt gaaccaagtg gaacaaagaa agaagatctg gatgacagag 2220  
agaaaaaaga tgaaactcct gcacctgtat atggggccaa gtcaattctg gagagctggg 2280  
tatggagtaa gcaaccaggt aatctttgat cagagataga aattagtgtg gacattttgc 2340  
ctccagatcc tcaagtgggt ttagaaattg gttctctaata tctgtgggag aaggttgata 2400  
ctggtatagt cttacacgtc attgaaactg gaaaagatag ctagatattc tcctactcat 2460  
gttttgata atgagataaa ttattttatg cttcacacac ttggagtatg tcatctactg 2520  
taatatagta tctgaatgaa tactttaaat aaaatacatt tctgtaaatt aattgtatac 2580

tttaaaaatc tgtgaataaa tttgagtagc aagtctcaga agcttgattc taaatattaa 2640  
 agatacatcc ttccttggga gggagcatgt agcaaatgtg ttactgtggt tgtaagcatg 2700  
 ctgtctttct ggaggtcgct tcgttctgc atccactgtt ttcatttgag ggatgttcac 2760  
 ggaataccag gcactaaagg gccagaatca tccccctaca ggaccagcac ttggccctgg 2820  
 ccatcctgct ggagctggct gtgcagagag gcatgctgag gtgagggtg gtgcagaccg 2880  
 ggaatgcttt ggggaagcgc ctctgtatcc aaataacctgt tgcatgtgt gcgtttcact 2940  
 gaatcgtgtg actgcagcag gtgtggtgt ctacagagaa ccatgtccca gggctctctc 3000  
 ttttctttt cttcacttcc tgttttatgc tcagttttct agcctgggaa ctgttcttct 3060  
 ttttttttct ttcagttttc ctcatttaaat tatttttatt ccatgaattt aagaccctag 3120  
 atcttcatgt aaatgtgctc tttgagcttc ttaactggtc tttcctatca gcagaaggcg 3180  
 atgtcttgtg ctaaaatctc agtgtcaatt cagtgattta actaccacgg ctttactttc 3240  
 gtttctttc atatcccaag tattttctca cttctatcta gctgtttgct tttatttttg 3300  
 atcaaccat 3309

<210> 1364

<211> 3107

<212> DNA

<213> Homo sapiens

<400> 1364

tttcacattc ctccttgact ccaggccctg ctgagtctgg cctcatatct atacagtgtt 60  
 tctcctctgt attggctctg ccaccacagt agttgaaact ctcattttct gcgatgagag 120  
 tagtctcacc gagcacctag gaggcagtcc aggctcttta gcatggtgtt ggaagccctt 180  
 aatgatctgc tacagcctgg gcctccagcc tcctctcctt ccacagcatg tactctgcac 240  
 agtagccata ctgtcttctt ttggatctgc ccccatagtg tgttctctca agtttttggc 300  
 acctttgtcc atgtcctctg tgttttagaat gcctttctcc atctcatcgt acctctgtcc 360  
 tgccacactg cacttgacat caccctttt taaactcttt atttccccct ttttaactct 420  
 tttagggttt tctctaagac ctaagtcctt cctccaagta ctcccaagc ctcctaagtc 480

acagctcatt tagtttgtca ttctttgtgc tgctgcaact gtagcaccta ccttgtatatt 540  
aaacagtttt attattttgt ttatttgaga cagggtctgg ctctgtcccc aggctagagt 600  
gcagtggtag aatctcagct caccacaacc tctgtctcct gggtagctca agcccacctc 660  
ccattcagcc tcccaagtag ctgggactgc aggcgcacgc cactgcctgg ctaatttttg 720  
gatttttttg tggagatgag gtctcactat gttgccagg ctggtctcaa actcccagagc 780  
tcaaacaatc caccaccac agcctcccaa agtgctagga ttataggcat gagccatcgc 840  
gcctggcctg attattgatt taaacatctg ccttcctaga aaactgtgaa ctctagaag 900  
aatgattttg tcaggtttgt atccccacat ttagcctgga gcttgctata gtaatctcac 960  
agtgtgcatg ttgatgattt tagcatttgt tgttttagga ctaacaatgc acaccgtttc 1020  
taacttctgt ttctcctcag cttttgcttc tacatactgg aatgggacgg ttatgcacac 1080  
tggatgaatc tgtctccctg gcaacatga ttgatcgaat aaaaagacac ctaaaactat 1140  
ctcatattcg cttagccctt ggggtgggga gaaccttagg taaatatagc tccttcatct 1200  
atccagtatg cctactgtta acattggaca aagatcgaaa ctcttggttg tattaatatg 1260  
tgatagagaa tgtgttagca actcatagga gataattggt ttacgttatt gattagggtg 1320  
ggccagggtc tgatgtggaa tacatctcat tgacttaatc aatgagattt atttctctgt 1380  
catgctatgt gttcatttca agttggatcat tgtaggaagt ctgaccattg tagactgggt 1440  
gctgttgtag agggagggag ttttgcaggg tcttaaacca tcagtttaaa attccaggaa 1500  
acatgttaat ttctgtcaa ctcatcttc agaattagtc atgttgcca atacaagcaa 1560  
gggaggcata aagtgcagtc ttaccatgtg tcaggaagag agctggaatc atgattgcta 1620  
caattacaac ataaactttg cacttataag actggtaata ttttctagtg aggtgctact 1680  
gagtgatctg atccattgta gtttctaagt cttgtagttt tttcttctgg cttttcctgg 1740  
tacttttgag aacaaaaaga gtgaacagac atttgttcaa caccttcagt gagcctagca 1800  
ctgtactgat tgtctgtcct aagtacgtga gctcctgctg gcaaaagcag tggggtacag 1860  
cggttatagg tgtggattct gagcttagac aacctggctt cagatttgct tgcctgttt 1920  
gctgcatgtc ttgacaagt ttatgccctc tgtgtcacag tagcctcatc tgtaaaaact 1980  
gcattaataa aacctaactc agaagggtgg agtataatcc atgtgacatg gcacagtgat 2040  
tggctcacat taagtataaa gtgctagctg ttgttagttt tgtggttggt actatttctc 2100  
ccattttata ggtgaacaat tgtggttcag agagataagt aactttatta gttcgttctc 2160  
acgctgctat gaagaaatac ctgagactag gtaatttata aagaaaagag gtttaattga 2220

ctcacagtgc tgcattggctg gggaggccac aggaaactta caatcatgtt ggaaggcacc 2280  
 tcttctcagg gtggcaggag agagaatgag tgcaagcaag agaaatgcca gatgcttatg 2340  
 aaaccatcag atctcgtgag actcacgcat tatcacaaga acagcatggg ggaactgccc 2400  
 ccatgatcca attacctcca cctgggtccc cccttgaccc gtgggaatta tggggattat 2460  
 attcaaggtg agatttggat ggggacacag agccaaacca tatcagtaac ttatctaaaa 2520  
 gtccagttag atcaacaac ccaagggagt tagtgtccaa agaaaatgga tagcagaggt 2580  
 gggatttgac ttccaaaata actccaaagc cccctctttg agataccctg ctgctgaact 2640  
 ggagtgtcca ctaaagtgtt catttttagaa acccaagtgc taaatacttg gatatttggt 2700  
 cgaaagtgc tgttatttca ctttccagag gatgcttttt gagaataaat agtatattta 2760  
 aaaatagtgc caaatccatt tgtagcattc ctctttttat agtcctttta gttccttagc 2820  
 ttcctcacct gagaatagag atagtacttg cttacctctc actgttgtct gaagaccag 2880  
 gtgagattat ttacctagc actgttgcaa tacagcctag agctgcacca ttagtactat 2940  
 tcagtggttt gtgagtttgt gcagccatgt ccaaaggaat aacggtgccc ctttcagcag 3000  
 cacatatact aaaaattgga tgatatagat tagcatggcc cctatgcaaa gattacacgc 3060  
 aaatttgcgc attgttccgt attttgcgca atttacaag gttgttg 3107

<210> 1365

<211> 3425

<212> DNA

<213> Homo sapiens

<400> 1365

ccttgaggag cctgagttgt gaataaacat gtgaatcctt attcttgatg cccctatctc 60  
 aagaggaagg ctcaatggct tgttctaggg gagccaaagt ctttgtgcat gttgttcagg 120  
 ctggaccagc aaggtagttt gtttggaggg aggagggagc tgtttaagaa gactacatat 180  
 gtaagttttg agaacactga tcttttattt gaaaaatagg gtcaactttt actcacctgc 240  
 catgttctga gtttaagggt tgatatcctt ggccatcaac tgttgcaggg aaaccaccct 300  
 aaataatgaa gaaaagaagt cgtctcagtg taaaaaaaaa aagtgggtggg cttattttct 360

tttcttttgt ctgttggtcc ctcttcccct cccccagaga gaaattctca aaagaacaac 420  
tcaaaaaaca aaatggcttc ctagtgagaa cttcagtgat gatcctttcc tccatttggg 480  
gtatgggctt ttttttcttt ttacactgag attattcttc tttcctgcat tatttaggg 540  
gtctgatgcc atcaagtgtt gcaggagaaa cttcagtcct ggctgttcct tcttggaggg 600  
accactcagt agagcctcta agggacccaa atccttcaga ccttttggag aacctggatg 660  
acagtgtgtt ttcgaagcgg catgcaaaac tggagctgga tgagaagaga aggaaaagat 720  
gggatattca gaggatcagg gaacaaagaa ttttacagcg actgcagctc agaatgtata 780  
aaaagaaagg aattcaggaa tctgagcctg aggttacctc atttttccct gagccagatg 840  
atgttgaaag tttgatgatt acccccttct tgccgttgt agcatttggc cgaccattac 900  
caaaattaac tccacagaat tttgagctac cctgggttga tgagcgtagc cgatgcagat 960  
tggagatcca gaagaagcaa acacctcacc ggacgtgtag gaaatagctg tgctggcaag 1020  
aaccctgtct tcagatagtt gtagcatgcc attcccagaga gtggcagaga cctgtatatg 1080  
tgacctttgt cctcacatat gttatcactc gctgataata ccctttcata cttccttgac 1140  
tttgttttca ttactctgat ttcacaaaaa ctctttcatt cggctaattg tgagttatgg 1200  
aggggtgattg ggatttcttt tccctttttt gggaaatggg ctctcaagct aaagctatag 1260  
gatggcagat tcagaagttt caggggtctg tttctataca tttgcctatg ttaaaggggt 1320  
aaaagggctc tcttcattag acatgtggaa gatgaagcag ccccttcctt tagagctgtg 1380  
cctgcatggc actctttctc ccctgggtaca ccctccttat agtgggtata gtgattttta 1440  
accctaaaat aaaacaaaca acctcaccat gagctttagg accagaagag gaatgacaag 1500  
tgaagcgatg aagcaagcca tcttcacaga gtagaaaaga catcggagag ttggtagata 1560  
actgtctgaa aagatagttg ttcatttgaa actattctgt gatacagtca tgtgggaagg 1620  
gatgtttggc tgtgattatt ttttcagtta atggataaca atttctttac tgctcaaaaa 1680  
ccaaaatctt tggaaaagaa agtggggatg gttagtttca gaacaagtta cagctgtaaa 1740  
caaaagcact tagtatttgg gatggcatgc caaaacctgt ataaatgtcc ttgtatcaca 1800  
tcacttctca agtattcctt cattgggctt catcctttta gcagaactct tgggtgggtggg 1860  
atagagactt agggagggtg gggggagagt gtggaaatag gtgcttcctt tggctggcaa 1920  
atgtctacat cttgaaacaa acagatgtac ctaatgagct tctccattca ctttgtaaaa 1980  
ataatttgta tgtgtacat cttggtcctc tcccctcccg ttttgtaaaa atatcaggat 2040  
agcactccca ggccactttg gtctcagtg aagatcccta ttaactatct gaaaggaaaa 2100

tagagccaag acctctggtc tcaaatatat aggaattgcc tttctttagt cttcaggact 2160  
attgtgtgaa aacaagtagg ggtctaattc cctagaaggt aggggctttt atccttaaag 2220  
agaatatgtc cccagattat tagcactttt agaggagaag ccaaggatat taggggtgtgt 2280  
ggctggccca tcagtggagc acgaagagag aatgggatac cattgtggga agagaagaaa 2340  
agttcctcag gggcctccca ctgctaaagt tttttgtgag atgttgatct gtgcttcctg 2400  
gatttgactt ttaaaggaat tattctggca gcacatgtag tattcttgga tgatcttgct 2460  
gctcttattt ctctttttgt gtgtgtgtgt gtgtgtgtgt ggctatgggt tttcatttgt 2520  
aactccatct gcttaggaga gtgggctctc tataaggga cctgctgtaa acttcattgc 2580  
agcaaggatg tagagagaaa taggacttaa ttccactagg ggctctcatc tcacacctta 2640  
aggaggagat ttctagaaaa actgggccag attttctttg ttctccatca ttttaatgtg 2700  
gcaggctgtt cagttttctt actcttacct atgtgatatt tcttcgtaac gtgtccaaaa 2760  
agaaaaaaga cccaatcagt gtctcttgac tttgttcttt gatccctcag tttcttcttg 2820  
atttcagcat gtgtcgggtt cctaattttg ggtatgagtt agcaaattta accattgtgt 2880  
ttgtgcccta cccaggggac tccccagttt ctgacttgaa gtagactgag aagaatccac 2940  
gaggtgctat ctggccagat ttaagtagat tctatttcct tggttctccc tctccctgag 3000  
gacctcttat tttattgtcc cctcttctag gttaattctc ctttgatttg actttgttga 3060  
gaaggagggt ggacagtaga ttagcaaagt tccaagtgca aaattacagt gtgttagagt 3120  
gtggggggaa aattagtctt atttttccct acatgggata caacactgtg aattcaatct 3180  
tcaactgaag gccctgcagt tctcctaaaa catagttgtt tgtttttctt taacaaagtt 3240  
taagctagtg ttaataaatt aaaaaaatt gcttgtctgt ctacttcagc tttgttttat 3300  
gcccatttca tattgttgtc tgtgttgtaa ttcataactt ttgataccat ttctgatgtg 3360  
taaaattggg tgtcttgtaa atatcttata aagagttcaa ttgtaaataa actattgtgg 3420  
ctgtt 3425

&lt;210&gt; 1366

&lt;211&gt; 3375

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 1366

aagttaacag ttcacccagt gtgtgtgttc ccagtctcat atcatattta acacagactg 60  
aacttgacaga cattagcatg cttagaagtg actctgaaaa catacttaca aactatgaaa 120  
atcaaagccg agtggaaca aatgaacgtg caaatgaatg tagtcattct aaaaacattc 180  
aaaactttcc aagtgattta atagaaaatc ctattatgaa atcaaaaatg agtaaattct 240  
atgggtgtgaa tgaaacagag aatgaagata atacaaacag ggattcacct atctttgact 300  
attccccag gctaagtgcc ttgttaagtc atgataaatt gatgcacagt cagggaagtt 360  
ttaatgatac acacaccca gagagcaatg gaaataagtg tgaagcccca gccttatcat 420  
tcagtacaa aaccatgttg tcagggtcaa gaataggaga aaaatttcaa gaccagtttc 480  
tggaattgc agctattaac atcagtttac caggagagca gtatggacag aaatctttaa 540  
atatgatttc tagtaatcct caagtacaat atcacaatga taaatacatt tcaaatactt 600  
ctggtgagga tgaaaaaca catccaggtt ttcagcagat gcctgaagac aaggaagatg 660  
agtctgaaat agaagagtat tcctgtgctg tgactccagg gggtgatact gataatgcca 720  
ttgtgtctct tacttgtgct acaccattgc ttgatgaaac catcagtgc agtgactatg 780  
aaacgtcact gctgaatgat cagcagaata acacaggaac agacactgat agtgatgatg 840  
atttttatga tactcccttg tttgaagatg atgaccatga ttctttgctt cttgatgggtg 900  
atgatcgtga ttgcctgcac cctgaggact acgacacact gcaagaggaa aatgatgaga 960  
cggcttctcc tgctgatgtt ttttatgatg tctcaaaaaga gaatgaaaat tccatgggtc 1020  
cccagggggc accagttggt agcttaagtg tgaagaacaa agcacattgt cttcaggatt 1080  
tccttatgga tggtgagaaa gatgaattag attctgggtga aaaaatacat ttaaactctg 1140  
ttggctcaga taaggtgaat ggacagtcac tggaaactgg atcagaaagg gaatgcacaa 1200  
atatacctga aggtgatgaa tctgactcat tgactgatta tgatattgta ggaggaaaag 1260  
agagcttcac tgcataccta aaatttgatg acagtggcag ttggagagga agaaaggaag 1320  
agtatgtaac tggacaggaa tttcactccg atactgatca tttagattct atgcaaagtg 1380  
aagaaagtta tggggattat atatatgaca gtaatgatca ggatgacgat gatgatgatg 1440  
gcattgatga agaaggagga ggtataagag atgagaatgg aaagcccagg tgccaaaatg 1500  
tggctgaaga tatggatatc cagttgtgtg cctctatittt aatgaaaac agtgatgaaa 1560  
atgaaaatat taatacaatg attcttctgg ataaagtgca cagttgtagc tctttagaaa 1620

aacagcaaag ggtaaatggt gtacagctag catcacctag tgaaaataac ttagttactg 1680  
aaaaaagcaa ccttccagaa tatacaactg agattgctgg aaaaagcaaa gaaaatctgt 1740  
tgaaccatga gatggtactt aaggatgtat tgccgcctat cattaaagac actgaatctg 1800  
aaaaaacttt tggccctgca agtatttcac atgataataa taatatcagt tcaacttctg 1860  
aattaggtac tgatctagca aacacaaagg ttaagttgat tcaagggtca gaattgccag 1920  
aattgactga ttctgtgaaa ggtaaagatg aatattttta gaatatgaca ccaaagttg 1980  
actcatctct tgatcacatc atttgtactg agcctgattt aataggaaaa cctgctgagg 2040  
aaagccattt gtcattgata gcctctgtaa ctgacaaaga tcctcaagga aatggaagcg 2100  
atctcattaa agggagagat ggcaaaagtg atattctaata agaagatgaa acatcaattc 2160  
agaaaatgta cttgggtgaa ggagaagtgc ttgtagaagg tctagtagaa gaagaaaata 2220  
ggcatctcaa acttttgcct ggtaaaaata caagggatag tttcaagtta attaatagtc 2280  
agtttccatt tccacaaatc acaacaatg aagaacttaa tcagaaagga agccttaaaa 2340  
aagcaactgt aactcttaaa gatgaaccaa ataactaca aataatagtt agtaaaagtc 2400  
ctgttcagtt tgagaatctt gaagaaatgt ttgacacatc agtttccaaa gagattagtg 2460  
atgacattac ttcagacatt acatcgtggg aagggaatac acattttgag gagtcattca 2520  
ctgatggacc tgagaaagag cttgatctgt ttacttactt aaaacattgt gctaaaaata 2580  
taaaagcaaa agatgtagcc aaaccaaag aagatgtccc aagccatgtt ttaataactg 2640  
cccctcccat gaaagaacat ttacaattag gagttaataa tacaaaagag aagtccacta 2700  
gtacccaaaa agactcacct cttaatgaca tgatccaaag caatgatctt ttagtagtaag 2760  
aaagcatctc aggaggagga acagaaatgt ctcagttcac accagaaagt attgaagcca 2820  
cactttcaat attatctcgt aaacatgtag aagatgttgg gaaaaatgat tttctgcagt 2880  
cggagcgggtg tgcaaatgga ttaggaaatg ataactccag taacacttta aatactgact 2940  
attcattctt agaaattaat aataagaaag aaagaattga gcaacagcta ccaaagaac 3000  
aagccttgtc tccaagatcc caagaaaagg aggttcagat tcctgaattg tctcaggtat 3060  
ttgtggagga tgtaaaggat atcttaaaaa gcagggtgaa agaagggtcat atgaaacctc 3120  
aagaggttga agaaccttca gcctgtgcag aacttaaaat tttaattcaa aatttaatta 3180  
aaaggattac cacatcacag ttggtaaatg aggcattctac tgtgcccagc gactctcaaa 3240  
tgagtgactc ttctggagtt tccccatga ctaactcatc agaactaaag ccagaaagta 3300  
gagatgatcc tttctgtatt ggaaatctta agtctgagct tctccttaat atattgaagc 3360

aagatcaaca tagcc

3375

&lt;210&gt; 1367

&lt;211&gt; 3051

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 1367

aatgagcgcc tcgggccgcc cagcgcagcc ggagtatcca cctcgatgac cacgggctga 60  
gccccgcgcc gccaccatgt ccgtggcctt cgcgctctgcc cggccaagag gcaaagggga 120  
ggttacgcag caaaccatcc agaagttttt gaagaatgcc ggccagtcac cgagtgcctt 180  
tggtttgggt acaaggtgcg ttttcctaac ttgcgggtct gaaagtgcgt ccattccccc 240  
ttcacgcctg gttgcggttt cggcggacta gaatttctac gcagaagtct ccctcaggat 300  
cagaccgtag cccttcgga aacctccatg atgctggacg agaaccacca cctgatccag 360  
tgcacacctg agtaccagag caagggcaag acggccgagt gcacgcagta ccagcagatc 420  
ctgcaccgga acctggtata cctggccacg atcgcagact ccaaccagaa catgcagtcc 480  
ctgcttcttg ccccgccatc agcacgggcc tgccaccctc ctccctcctg cagggccaga 540  
ttggcaacgg gccgagccac gtgtccatgc agcagacggc gcctaacacg ctgcccaccg 600  
cctccatgag catctctggg cccggctaca gccacgcggg acccgctcgc cagggcgctc 660  
ccatgcaggg gcaaggcacc atcggcaact acgtgtctcg gaccaacatc aacatgcagt 720  
ccaaccagct ctccatgatg cagcagcagg cggccacgtc gcactacagc tcggcgcagg 780  
gcggcagcca gcactaccag ggccagtcgt ccatcgccat gatggggcag ggcagccagg 840  
ggagcagcat gatggggcag cggcccatgg cgccctaccg gccctcccag caaggctctt 900  
cccagcagta cctggggccag gaggagtact atggcgagca gtacagccac agccagggcg 960  
ccgcggagcc catggggccag cagtactacc ccgacggcca tggcgattac gcctaccagc 1020  
agtcaccta cacggagcag agctacgacc ggtccttcga ggagtccacg cagcactact 1080  
atgagggggg aaactcccag tacagccagc agcaggccgg gtaccagcag ggtgccgcgc 1140  
agcagcagac gtactcccag cagcagtacc ccagccagca gagctacccc gggcagcagc 1200

agggctacgg gtctgcccag ggagccccgt cacagtaccc cggctaccag caaggccaag 1260  
gccagcagta cggaagctac cgagcaccgc agacagcgcc gtctgcccag cagcagcggc 1320  
cctacggcta tgaacagggc cagtattgaa attaccagca gtaagggaca cacattctgg 1380  
ctggagccct tgttgtagcg tgttcatcca ggggcccgat gggctggcgg cagctctgg 1440  
gaattgtgac atgttggtta cctgttcgcc cagtgccacg tctgcatgtg aagcgtgctc 1500  
atttcatgct gggatatgac ccgagcgcac accactggcg tgagacagcg cttgggtggtg 1560  
tgatactttt ggtgctgtgt atagtattgt atgtcggtag acggagagggt atcctttttt 1620  
tgtccccgc ccccttctca atgtttctag ctagctttgg gggtcatttt gtcacagag 1680  
cattctgtgc ccaggacag gacagatctc gaggacacca cagtccacct gttcccgta 1740  
acagacgtta ggtctcattt tctctctcat gcagtgttgt agtgtgggtt gtcaactttt 1800  
ctttaactgg ctacgccaca gctggacaca catgcagccc ctggagggca gcctcttctt 1860  
gtgcctcgat ggggtgggtg ggagggcatc ttctgtgcgt tgggtcagtt tctgttacgt 1920  
aacgaaaagg ataaacatct cccacgggag aggccacaga tggccacttc cagagcttgc 1980  
ccattgcctg tctctcgcca attccgttta tccaaaaagg tacatgtttt tgtattaaaa 2040  
agtaaacagg gatcagtac tgtattccaa ataaatatga atccctaagg gccgtggaca 2100  
aattgcctaa ccaggggcca gcggtattgc tgaaggaaag gggcagctct ctgggaagtg 2160  
ggccctcaga gattactctg gctttgacct ttgttttagct gatggtcatt tctgggattg 2220  
gaatatttaa taagcccaat tctaagttga taggtaattt taaatattca aaccaaattc 2280  
tccaacagt tggcaagttg tttattttat attatttctt ccaggacctt cttgctcaga 2340  
tctccaagca agcatttctt ttcttttagg gatgtctgaa agtcacatcc agttacatta 2400  
ctgtgttctt tctaataaaa agtaaagggtt ttatatagag aaacttgagt aatttttaca 2460  
tttctaagac attaaatccc atttaaattc tgtgtgaaca tttaaagacag cacacttgca 2520  
aaagtatggt caaaggaaaa aaatcccaca tttcaattaa caagtagcat ggacatttga 2580  
tcaaccttta gttggaataa taatattcat atttgctatg aatcctttta aaaaaatctt 2640  
tggataaatg ctgacagatt tccaagaact accaagaaaa tacaagagat atccaatgct 2700  
tgatatatga ggcctagtaa taacgatatt tctctttaat tgatgttttg ttttaaaagt 2760  
taaaagtaat tcttggcgtg gtggttcacg cctgtaatcc cagcactttg ggaggccgaa 2820  
gcgggcggat cacctgaggt cgggagttcg agaccagcct gaccaacatg gagaaacccc 2880  
gccctacta aaaatacaaa attagccagg tatggtggtg catacctgta atcccagcta 2940

ctcgggaacc tgaggcagga gaatggcttg aacccaggag acagaggttg tgggtggggca 3000  
agatcgcacc attgcacccg agcctaggca acaagagtga aattccgtct c 3051

<210> 1368

<211> 3480

<212> DNA

<213> Homo sapiens

<400> 1368

gtttatacaa tatttacaca gtggctacaa tattcacaaa attcttatgt tctcttatga 60  
aaaatataca cttttcattt tgtcttcttc tttttttttt ttttttagat ggagtttggc 120  
tcttgtcacc caggctggag tgcaatggcg caatctcagc tcaactgcaac ctctgcctcc 180  
cgggttcaag cgattctcct gctccagcct cccatatagc tgggattata ggtgcctgcc 240  
accatgcccga gctaattttt gtgttttttag tagagatgga gtctcaccac ataggccagg 300  
cagtctcgaa ctctgacct caggatgatcc acccaccttg gcctctctaa atactgggat 360  
tacaggcgtg agccactgca tccgacctca ttttgttttt ttcaattctg ttatcggcat 420  
ttctttcttt ttttttttta atgtatagggt gttctgtcat acgttattgt gagctttgggt 480  
tctttgaaca ggtgatctat tctctttacat tttgtgcttt ttatcttggg tgcctagcat 540  
tctgtttttt tgatcctatg tcataatttt ttgagaaaat gtttgatact gcaagatcat 600  
tgtttagtgg tctgttttct acttcagtat tctaccagag aacatatttt ttagggggaga 660  
agggttatgg ttttgtaaga aactttaaat atacttttag gagaccaca atcatttaca 720  
gttttatctt tggcctttga ataggttctt ttttctttaa tgtctccgta tttgcagaac 780  
tgagctctgt acgttataaa tttgcttaaa gatattgatt ttttcttcag aatatggtat 840  
acttaaaatt aattaattaa gacagtttct tttttctttt cttttttttt ttttcgagac 900  
agggtcttgc tctgtcacct aggctagagt ggagtggcat gaacacaacg cactgcagcc 960  
tctacctctt gggctcaagc agtctcccca cctcagtcct ctgagtagct gagactacag 1020  
ctgtgcgcca ccacatctgg ctaattttat ttttattttt gtagagacag gagtcttgcc 1080  
atgttgccca ggctgatctc aaactcctag gcttaagtga tcctcccgcc ttagcctccc 1140

aagtgctagg attacaggca tcagccacca cgcctggcct gatagtttcc acatagtttt 1200  
tcatgactta gaagatatca ttgccatgta ggttttattt ttaaaagtct tgagctcttc 1260  
ttaaataac attataaaga gcaagcatag atggaaagtg catattgaac acatctgtgc 1320  
at ttgagaag gcaggctttc atatgctgtc atgagcaaaa agtagaagtg ataaatgcaa 1380  
gttatgtttt gagattgctt acaccgtgac aagatgccat cacttgtgat gttatgaact 1440  
gttataaact ctttgcttct gctaagaagc agtctaaata taatcaacgt acagtgaact 1500  
ctttgaagcc aaccaaggca ggcagaaccc tcttaaatat gagactgatg tataggttct 1560  
ctctatggtc agtatcactg gataagcctt ctcctttcat aagaaaggat gtattttaat 1620  
acattttatt ttgctaaatc ctgttttagt ttcagccatt aaatgtcaca tgaagccttg 1680  
atagaatttg ttcataatgg ctcatgtatt attattattt ttgagatgga gttttgctct 1740  
taatgatatt attattattt gagacagagt tttgctctta ttgcccaggc tggagtgcag 1800  
tggcgtgatc ttggctcact gcaacctctg cctcccagct tcaagcgatt ctctgtatc 1860  
agcctcccaa gtagctggga ttataggcat gtgccaccat gccagcaaa ttttgtattt 1920  
ttttttgta gagacagggt tcaaccatgt tggtcaggct ggtctcgaac tcctgaccgc 1980  
aagtgatcca cacgccttgg tctcccaaag tgctgggatt acggtgttag cactacacc 2040  
tggcctggat tgtgtattat ttatgtctgt agtttatatg cttagtgtt gcctatagtg 2100  
atctgggtaa gattcaacaa tttatctttt gtatcttcta cagaagtgtt ttgagcatca 2160  
aat ttgtttt aacgttaaat ttagt ttgtc tgtattaaaa tagatcaatg aatataattc 2220  
agtc ttttag gggcaccaag taaagcataa ggtcatatat actatacaat atgtttattg 2280  
cacttcccat ggggataaat cactctgtca ttcctagtta ttttaaaaaa agaactttat 2340  
gattacggtc ctctttctca catactgcaa acttaaaaaga tacatacacc aaatataggt 2400  
ctgttttaaa ggagaggaaa aatagttcaa ggagtttttg cctctttgtt tttaaataga 2460  
ttattctgcc attttttaaa ggaaaggga aatgaaaaca gcatgtcttt ttaaacttg 2520  
aaaagaaata tggaggcttt aaaccgcaaa ctgaaaaagc tgagtagaac aaaggcagtg 2580  
gagcatacaa tacaattcta tttatttgag gtttaattgaa gtttaataatt tttaaatttt 2640  
tttctaattt tatgccttaa aataggtttc tgattacata aaatttgaat agaacactca 2700  
agaagtatgt agatttttga aaaacccaaa caatattctt cttagatttt tggaggcaaa 2760  
atttagacca gtatactaatt tcaaaagaca aatatttcag aggaagtgga gtatagtatt 2820  
taacattttg tttgcaattt tactttttct tcccttcttc cctattgaac cttgattaaa 2880

atgtatgaat acaataacttg gatTTTTTTTT tcagcttaga ctctgataat ttcagtggta 2940  
gtggggaaac ctgaatttgt cagcatgatt atttgtaact cagattgttc aaatgtatat 3000  
agaaggcccc cttcaagtgt tgTTTTCTCA agtagtcata aatgtagcaa gtataaatca 3060  
gaatatcatc ttataatctt acagagttaa cctaagtgt caataccttt ataagcaaaa 3120  
ccatgataaa TTTAAAACA acagaaatgt ggcatgatta cttatttatt tgttccaggt 3180  
gactctaaat agttgatTTT tctgcctgaa ggatcctgaa catatttagt taccctgtag 3240  
ttatttagga atttaaacca gaagactttg aagttgtata ttcttgcaat gcataaaatg 3300  
acattataat caacaaactt atggTTTgtt tcaattgatg cacacaaaaa ataacttata 3360  
gttagacttt tctatttcaa gtaaagcttt gagttactta TTTTATAca tattcatcat 3420  
gtacccttta ttgtttctag gtgttgatat actttaataa aaatgatatg tttaatattt 3480

<210> 1369

<211> 2994

<212> DNA

<213> Homo sapiens

<400> 1369

agtgcattgag cagctgccag ggatctctcc atgggccccg tcgtccccag cctggggctt 60  
ctggaaggag caccacacg gatggtggcg gcagcagtcc tgcaggcgag caggaacca 120  
gccagcacag gacaggggcc gcggtgcaga gaaagccctg gccttctggt ggtctctggc 180  
ggcaagacca acagcctggg ccaggggagg cccccacac ccaggccttt ggagaatggc 240  
catgggggca ggagcttggg tccaggggcc ctggactggg tggagatgcc ggatcaccag 300  
cgccaccctt ccacagctcc tcctacagga ttagcttggc aggtgtggag ccctcgttgg 360  
tgcaggcagc cctggggcag ttggtgcggc tctcctgctc agacgacact gccccggaat 420  
cccaggctgc ctggcagaaa gatggccagc ccatctctc tgacaggcac aggctgcagt 480  
tcgacggatc cctgatcatc caccctctgc aggcagagga cgcgggcacc tacagctgtg 540  
gcagcacccg gccaggccgc gactcccaga agatccaact tcgcatcata gggggtgaca 600  
tggccgtgct gtctgaggct gagctgagcc gcttcctca gccaggac ccagctcagg 660

actttggcca agcgggggct gctggggcccc tggggggccat cccctcttca caccacagc 720  
ctgcaaacag gctgcgtttg gaccagaacc agccccgggt ggtggatgcc agtccaggcc 780  
agcggatccg gatgacctgc cgtgccgaag gcttccccgcc cccagccatc gagtggcaga 840  
gagatgggca gcctgtctct tctcccagca cccaccgccc agcccaggga ccctggcagg 900  
gactgcgtcg accagccaga gctggccaac tgtgatttga tcctgcaggc ccagctttgt 960  
ggcaatgagt attactccag cttctgtctgt gccagctgtt cacgtttcca gcctcacgct 1020  
cagccccatct ggtagtaggg atgaaggcta gttccagccc cagtccaaaa tagttcatag 1080  
ggctagggag aaaggaagat ggactcttgg cttcctctct ctggctggca aaggagatta 1140  
tcttctggaa tacattagct ctttcaaaaa cccaccagct gtttagcctc aacggcagcc 1200  
agttaccagc ttctctctgt agccttcagc agtgtttgca tctctgacat aaccacaggc 1260  
tgctgttttc aagaagagca atctgtttgg ataagaaaaa cctttacttt acagcttccc 1320  
tttataattt gttacacagg aatagttaaa tgcatttggt tgtttgtttt ttgagacaga 1380  
gtttcactct tgttgcccag gctggagggc aatggcgcca tctcagctca ctgcaacctc 1440  
cgtctcctgg gttcttgatt ctctgtgtc agccttctga gtagctagga ttacagatgc 1500  
ctatcaccat gcctgggtaa tttttgtatt tttagttgag atgggggttc accatgttgg 1560  
ccaggctggt ctggaacttc tgacctcaga tgatctgccc gcctcagcct cccaaagtgc 1620  
tgggattaca ggcatgagcc accacgccc gccatcaatg catttttttt attttttttt 1680  
tgagacagag tttcgactt cttgcccagg ctggagtaca atggtgcgat cttggctcac 1740  
tgcagcctcc acctcctggg ttcaagcgt tctccagcct cagcctcctg agtagctggg 1800  
attacaggta tgtgccacca tgcctggcta attttgtatt tttagtagag acgggggttc 1860  
tccatgttgg tcagactggt cttgaactcc cgacctcagg taatccgccc gcctcggcct 1920  
cccaaaatgc tgggattaga ggtgtgagcc actgtgccc gccatcaat gtgttttaaa 1980  
gctagctgtc agggttccac ttaatttaaa gctgggcagg gagatgtgta atgatttcaa 2040  
agttaacacc tgtttgtttt ctaaagggca tgccaagtcc tgctgtatca gggaagtatt 2100  
ctgtgctaaa atcagcgatg gttcattgct ctagtctctc tcaccttct aggcagtga 2160  
tcagtcagct ctaaatctgg tgcagagggt taacagcata acccttggtg gcaaaatgga 2220  
atagatgtta agacctcaa tagggatttg ggatgaaaca gctgcagtta gcactgttat 2280  
ctgagcatga aagaactgga aacgctcctt acgtcgagat gttggacctt gaagccctcc 2340  
tgaggccaac atgcaaactt ggctgtgacg gttcatctga cacctgtgta aagcagacca 2400

gcctgctctg tacagtgaca atgaggagcc cctctcttcc ttaagtagga atctgtgaag 2460  
 caaaatgttt gctgccaaag acaaatcaga ctgtcagtca ttaaaaacag cattagcagg 2520  
 atgaggatag caatggggaa gggttgtggg caatgcagta acagggaat ggcttcagaa 2580  
 atggtttgag ttggaagaca acattcttca tctctcagga cttctaattc cttgatgcta 2640  
 aaagaagagg catggattct atgagcttcc aagtcctttt ccactttaac cttctacaaa 2700  
 tctttcagag gactgcctag tagcaaaggt tattcctgga cacaggaaag acgggcatta 2760  
 cagggaccaa agctctgaaa ggtgactttt attaccaaca cactggctgg aaaagggaca 2820  
 aaccacatca cgggtgagtg atactttctca gtctttctta ctcattcaac aaaggaaatg 2880  
 tgggctgggg cagaggtctt ttttcattta atactggaaa aatattgaag agcatccatg 2940  
 ttcacttatg gctggttttg ctatagaaat tggaaaataa aggccacttt ttg 2994

<210> 1370

<211> 4196

<212> DNA

<213> Homo sapiens

<400> 1370

aagcactaat ggactaagac aaaaagattc cattatgaaa gtgaaaaggc aaccgcagag 60  
 tggcagaagc ttttggagat gatgaatatg tttacttcct ggattgcggt gatgatacca 120  
 tgagtgtata catatgtgtg tatacataat gtatacaaat tgtgttcatt gattatgtac 180  
 agtttctttg tataccaatt ataccttaat aaagctaagg aaaaaaaaaa gaaaatccag 240  
 aataaatatg catggtatga cccatttatt taaaaaaaaa aagagggaat gcgaagcagt 300  
 ggttttggtg cgaacacaaa aattctggct tcaacagcat ttaaattccc aaaccaagca 360  
 tgtttatgtt ttaattcttt gtggccataa attgtacagc tcaggccttt atagtctctc 420  
 agattctgtg aatgtgggga attagtttta ctcataaaaa gttttgttct tggggataaa 480  
 ttttttaaaa aaatttttgt atagtttagca cactgagaaa atacagacaa aggcatagag 540  
 atgcaagaaa tgaggtagct gaatagacca aagaatgata tagggcccag aaggtaggca 600  
 aagagaaagt tgttgggttt atggttacaa gtaaaactagc agttgtggtg cagatagttt 660

tatttcccc acattaatct gaacagccca tccagactta aacactgctt tttgcattta 720  
cttctaggca ggaagacagg gttctgatgg tgtgagtctc cttcaactca gcaaaccacc 780  
ttggctctgcc tcgagtttcc aacaccctc ctgcctgcta gtgatagggtg tgaggcaggt 840  
tgatgaacat ggaacttttt tcttttggtc ccaaagcatg ctactcctgg agtttcattc 900  
agtgaatgag aactatagtt tggttctgtg agatctctat gaatcaaggc ggccactgaa 960  
gcgagaaaaa gaaatgctta aatgttaaga aagtttgaag tgcagaaaaa ggtgattgta 1020  
aatccatatg gttaagctta gcccatctt taaaaggctt gattgctcat tccctcattc 1080  
attgatttac tcaactcttc aatccatggt attgagtctt gctctgtaat tccggatggt 1140  
tgtgctttta agtactgcat agtggttgta tgtctgtgtt agcattgctg aatgtatcag 1200  
ggaattcatt tttttatccc cattcattcg ttccattcat ctgtttctct ctctctctct 1260  
ctttgtgtgt gtgtgtgtgt gtgtgtgtgt gtgtgtgtgt gtgttatgcc tagaaaacat 1320  
ttctcaagaa ttagaattac gatatgctgt caaacacaat gacttatttg aacctctttt 1380  
atttgtaggt tgaagcactg gacaatgcca catactttgt ggatgggtgtg ggtcttgggg 1440  
gtcatcatca gcctctccaa ggaagaatcc tccaatcagg cttctctgtc ttgtgaccgc 1500  
aatggatatct gcaagggcag ctcaggatct ttaaactcca ctccctcagg gctcacagaa 1560  
gctgtaaaaa gccttgacct gtccaacaac aggatcacct acattagcaa cagtgcacta 1620  
cagagggtgtg tgaacctcca ggctctgggtg ctgacatcca atggaattaa cacaatagag 1680  
gaagattctt tttcttcctt gggcagtcctt gaacatttag acttatecta taattactta 1740  
tctaatttat cgtcttcctg gttcaagccc ctttcttctt taacattctt aaacttactg 1800  
ggaaatcctt acaaaaccct aggggaaaca tctctttttt ctcatctcac aaaattgcaa 1860  
atcctgagag tgggaaatat ggacaccttc actaagattc aaagaaaaga ttttgctgga 1920  
cttaccttcc ttgaggaact tgagattgat gcttcagatc tacagagcta tgagccaaaa 1980  
agtttgaagt caattcagaa tgtaagtcac ctgaccttc atatgaagca gcatatttta 2040  
ctgctggaga tttttgtaga tgttacaagt tccgtggaat gtttggaact gcgagatact 2100  
gatttggaca ctttccattt ttcagaacta tccactgggtg aaacaaattc attgattaaa 2160  
aagtttacat ttagaaatgt gaaaatcacc gatgaaagtt tgtttcaggt tatgaaactt 2220  
ttgaatcaga tttctggatt gttagaatta gagtttgatg actgtaccct taatggagtt 2280  
ggtaatttta gagcatctga taatgacaga gttatagatc caggtaaagt ggaaacgtta 2340  
acaatccgga ggctgcatat tccaaggttt tacttatttt atgatctgag cactttatat 2400

tcacttacag aaagagttaa aagaatcaca gtagaaaaca gtaaagtttt tctggttcct 2460  
tgtttacttt cacaacattt aaaatcatta gaatacttgg atctcagtga aaatttgatg 2520  
gttgaagaat acttgaaaaa ttcagcctgt gaggatgcct ggccctctct acaaacttta 2580  
attttaaggc aaaatcattt ggcatcattg gaaaaaacg gagagacttt gctcactctg 2640  
aaaaacttga ctaacattga tatcagtaag aatagttttc attctatgcc tgaaacttgt 2700  
cagtggccag aaaagatgaa atatttgaac ttatccagca cacgaatata cagtgtata 2760  
ggctgcattc ccaagacact ggaaatttta gatgttagca acaacaatct caatttattt 2820  
tctttgaatt tgccgcaact caaagaactt tatatttcca gaaataagtt gatgactcta 2880  
ccagatgcct ccctcttacc catgttacta gtattgaaaa tcagtaggaa tgcaataact 2940  
acgttttcta aggagcaact tgactcattt cacacactga agactttgga agctggtggc 3000  
aataacttca tttgctcctg tgaattcttc tccttcactc aggagcagca agcactggcc 3060  
aaagtcttga ttgattggcc agcaaattac ctgtgtgact ctccatcca tgtgctgtgc 3120  
cagcaggttc aggatgtccg cctctcggtg tcggaatgtc acaggacagc actggtgtct 3180  
ggcatgtgct gtgctctgtt cctgctgac ctgctcacgg gggtcctgtg ccaccgtttc 3240  
catggcctgt ggtatatgaa aatgatgtgg gcctggctcc aggccaaaag gaagcccagg 3300  
aaagctcca gcaggaacat ctgctatgat gcatttgttt cttacagtga gcgggatgcc 3360  
tactgggtgg agaaccttat ggtccaggag ctggagaact tcaatcccc cttcaagttg 3420  
tgtcttcata agcgggactt cattcctggc aagtggatca ttgacaatat cattgactcc 3480  
attgaaaaga gccacaaaac tgtctttgtg ctttctgaaa actttgtgaa gagtgagtgg 3540  
tgcaagtatg aactggactt ctccatttc cgtctttttg atgagaacaa tgatgctgcc 3600  
attctcattc ttctggagcc cattgagaaa aaagccattc cccagcgctt ctgcaagctg 3660  
cggaagataa tgaacaccaa gacctacctg gagtggccca tggacgaggc tcagcgggaa 3720  
ggattttggg taaatctgag agctgcgata aagtcctagg ttcccatatt taagaccagt 3780  
ctttgtctag ttgggatctt tatgtcacta gttatagtta agttcattca gacataatta 3840  
tataaaaact acgtggatgt accgtcattt gaggacttgc ttactaaaac taaaaactt 3900  
caaattttgt ctggggtgct gttttataaa catatgccag atttaaaaat tggtttttgg 3960  
ttttctttt ttctatgaga taaccatgat cataagtcta ttactgatat ctgaatatag 4020  
tcccttggtg tccaaggga ttggttgcag gatcctcgtg gatatacaaa ttcatagatg 4080  
atcaagtccc ttataagagt ggcatagtat ttgcatataa cctgtgtaca ttctcctgta 4140

tactttaaat catctctaga ttacttatga tacccaatac aatgtaaata ctatgt 4196

<210> 1371

<211> 3297

<212> DNA

<213> Homo sapiens

<400> 1371

agcttgtccc cgcctagcaa ggagtcggct aagaactgga tcctagcgag gagcccggca 60  
cagacagcga atgaccgcag ccagacagtc gctcttgctc ttcctcggcc ctgcggcagg 120  
atccgccggt gcaggggcct ctccccggac tccacgcgtg tctggagggc tctcgggtta 180  
gggaaggggg ctttggagac gccccgggcg gccgggcggt ggccggacgc gggcccttta 240  
agaaggagcg cggggcgcgg ccaggtaggg gcgggtccag ggccgatcag cgctgcgccg 300  
gcgccggccc gggagccgga tttggagcgc gaggcgccgg tgggggcgga gggggctgcg 360  
cggcggaggc tcccgtaggc tcggacgctc ctccctagcta gcggccgccg cccgccgccg 420  
cctgcgcctc cagctccttc gccccggcgg gcccggccgc cgcttcgggc agctcacctg 480  
ggaagcgctc acctgggacg cgctcacctg ggacgcgcta cctgcctccg ggcgccctggg 540  
cttcaggatg aaggaccgtc tggagcagct gaaggccaag cagctgacac aggatgatga 600  
tactgatgcg gttgagattg ctatcgacaa cacggctttt atggacgagt tcttttctga 660  
gattgaggaa actcggctta acattgacaa gatctcagaa catgtagagg aggctaagaa 720  
actctacagt atcattctct ctgcaccgat tccagagcca aaaaccaagg atgacctaga 780  
gcagctcacg actgagatta agaaaagggc caacaacgtc cggaacaaac tgaagagcat 840  
ggagaagcat attgaagaag atgaggtcag gtcacggca gaccttcgga ttcggaaatc 900  
ccagcactct gtcctttctc ggaagtittgt ggaggatgat accaaatata atgaagctca 960  
agtggacttc cgagaacgca gcaaagggcg aatccagcgg cagctcgaaa ttactggcaa 1020  
aaagacaacc gatgaggagc tggaggagat gttggagagt ggcaaccgg ccattctcac 1080  
ttctgggatc attgactcac agatttccaa gcaagccctc agtgagattg agggacgaca 1140  
caaggacatt gtgaggctgg agagcagcat caaggagctt cacgacatgt ttatggacat 1200

cgccatgctg gtggagaatc aggggtgagat gttagataac atagagttga atgtcatgca 1260  
cacagtggac cacgtggaga aggcacgaga tgaaacgaaa aaagctgtga aataccagag 1320  
tcaggcccgg aagaaattga taattatcat tgtgctagta gttgtgttgc tgggcatttt 1380  
agcattgatt attggacttt ccgttgggct gaattaagag tggcctaaga ggctgctgca 1440  
ctgaaataaa ctgatttcac tccagactgg tgtggccacc cttgtcttca gatgagaatg 1500  
gagtctgaat ggccttcctg agagcgagtg cgacccgttc ctttgtttcc ttgcaaccac 1560  
ccttggacct gactcagcta acaatctagc cctgggggaa tgtgatctac ctgatgcgac 1620  
cctgagttct ccccagagcc tcttcctgcc ccaccagctc tcaagtacct tttctcctgg 1680  
actgtgtgga cccaccagc tttcttcctc cctgttgtgt gtcagattat gccttgcact 1740  
tgggaaagct cttgtgagac tctcccaagg tgctgtatit ttctacctca tggagtattc 1800  
tcccagaaac tgcaatgtat ttttttaggg gagtatcttt aacaaagcag aatgattctt 1860  
ctaagtttgg caacaagaag gcttggatct gagtcttcta cctggcagga tgccaatcct 1920  
gtttgttgtc cgtatgtcct gaaaacatga gggactggca gatgtcattt tgggtctaaag 1980  
agctgacttg tttgaaattc agccttaaat taagctctta gttgttcagc ttgggggggca 2040  
actttgattt ttctctgtgt tgcagtctct catatttact caaggaggga ccaggatgat 2100  
acagtcactt gaggttatgc tttgcaaaaag gctgacggta tggaatatgt ttccatgtct 2160  
gagtcttaga aactggctgc tcattgttag aaagtatgc tttgtgagac tattgtcttg 2220  
gggccaaaaa taatcaggga ttttaaattg ggcaagggac aaggtgctag aatcctaagc 2280  
tctggaaata tttcatgaca ctggtgtatt cactcatgtg ttccagatgt attctaattg 2340  
tgtatgaaat gtatgtacac ataagtgtgt gtgtctcagg aagtaggaaa taaaaatgga 2400  
agctattatg acctcaaaaa aaaaaaagcc aactttgagc taggataaaa attgggtaaa 2460  
ggacatttgc ttacctgcaa atgaatcact gtggaaatgt gatcttcca tatcatcaag 2520  
aaacttgttt tctggatgaa tactgggaga ataaaatgag aactctggag tgagctaaat 2580  
tgatcccaat taagtttttc tgcttagcag acagaaggta taattttttg acacccttcc 2640  
ccacctggtg cctatgctag gcttgtcctg agaacatccc tcagtaactt gatattcaca 2700  
tgacctacag gatgtcccat ctgcagggct gagtcagttg gggaacacca gaggctacac 2760  
agtagctctt cctgctactc ggtaaatgag cttggcaggt tctttgtctc actgaattct 2820  
tatcatggaa acagcagcag cagccgctag gaaatcttca agtgtagtgt ctgtgctaac 2880  
ccagtggtaa atcccttaga tcccctgctg gtctctggca gtctccttga ttttgggtac 2940

catgtatatt ttccgctttg actttaacgc tttctaggat agggtaagca cccttaattc 3000  
aggcactgtc cattagcttc ctttgcaaag gctacttatg gccggtcaca atccagcact 3060  
cagacagagc caaggcaata tcctcttgcc catggctatg atgtcagaca gtggatgggc 3120  
tccagcaaca agagacaaaa taactaaagg cctttgctct cctctgacat tgaggcctgg 3180  
ggcttacagt ttggaataca acatgtgaag gtttttgttg ttgtttgtat tttttagatg 3240  
taaacttgat tattttattg ctaatttaaa aataaaaatg actttgtatt gattgtg 3297

<210> 1372

<211> 3096

<212> DNA

<213> Homo sapiens

<400> 1372

ttttgagatg gagttttgct ctttcgtcca ggctggagca cagtggcatg atctcggctc 60  
actgcaacct tcaatttccg gtttcaagcg attctcctcc ctcagcctcc tgagtagctg 120  
ggattacggg cgcattgtcg cagccccagc tgatttttgt gtttctagta cagacaggat 180  
ttcatcatgt tggccaggct ggtctcaaac tcctcacctt gtgatccacc caccttggcc 240  
tccaaagtg ctgggattac acaggcatga gccactgctc ctggcaagag attctttttt 300  
attaggtggg cattatttgt gatcttttct attgaaaagt aaaaacatta gaatgtaaga 360  
tgcataatga aaatgtaagt ggagagggtc tttggggtta acttataata ttgagtgggtg 420  
catgaggttg gtgttcagag taatattctg cattatgaaa aaacatttaa ttttatttaa 480  
aatttagttt atcactactaa ttgtactttt atataagatg cagtacattt ttaaaatttt 540  
agatttgttg aagttaatag ttttaacattt ttaacatgtt aaatactatt gtgcattcaa 600  
tgaagcatta ttataccaca aaccttacct tgttccacct tactgaaggg tataggtaaa 660  
agatggtaac gatatactat ttagtaacat aatggattaa catctctagt aatttttttt 720  
gccagtggct ttaaaccgca aataagttaa agaataattgt ttctgtaggt taaattttta 780  
ttttgttttt aatcatttaa atttaatttt ggtgggtaca taatatgagt atatatttat 840  
gcacttatat ggcatatttt agtacaggaa tacaatatat aatagtagca tcagggttaa 900

gtgaggcatc cttcacccat agcattttctc ctttgtttta caaacaatcc aaacctacac 960  
tttttaaaaa ttttttgttg ttgttgttct tgttgttgtt gggacggagt ctcgctctgt 1020  
cgcccaggct ggagtgtgca gtctcggctc actgcaagct ccacttcccg ggttcacgcc 1080  
attttcctgc ctcagcctcc caggcggctg ggactgcagg cgcccggcac catgcccggc 1140  
taatTTTTTg tatttttggg ggagatgggg tttcgccatg ttggccagga tggctcfaat 1200  
ctcctgacct cgtgatctgg tctcgatctc ctgacctcat gatctgcctg ccttgacctc 1260  
ccgggggtgct gggattacag gcatgagcca ccgtgcccgg ccacttttta taaattttaa 1320  
aatgtacaat tgttatttac tatagagtta tttttatggg cataatacaa attatatatg 1380  
agtataaata aaattcattt ctaaactatt aatatTTTT ccaaattgtt atatatTTTT 1440  
ctttgaacat gtggcctgtc tgcctgcaaa catgcagact ttttgattca catagagtta 1500  
aatatgtatt agtctaaaga caaacttttag gtgtaagaaa attatggaat aagtgtgtgt 1560  
gtgtgagtat gagtttgtac ctattttcag aaaagaacaa tatgggaata aaaatcattt 1620  
taataaggtg gctactataa aactaaaaac cttaaaaaat gctgaaagca aatgtatact 1680  
ttgtgctttg tattgaattt attactgtac aatccatgac ttacagttct gaaccttttc 1740  
atgcaaattc tctgtatata cttgcctggg actcatgcta gaccatact ttttttgttt 1800  
cttacatttt ttttgtttta tggtttagga agtattcatt atatgagctg gtctgtgatt 1860  
ataagaattt ttatgaaatt tagtgcacac aaaataattt ttagatgtaa ttccaaaagt 1920  
agtgtattaa gttacatttt atttagtgag agcactccat tttgttcttt taaggggaga 1980  
acaatatata agttttcttt tctttagtga ttgttccttt cactttttat aattgacata 2040  
agtatattta ttattgagt caatttgttc aggtaaagtac tggggggcct cataagtcatt 2100  
gaggatgttt ttatatataa atgtagcaaa catacattac agttcttact gtgtaatcga 2160  
tgctccataa taattcacia atattcctgc tggagttagt ttgtaatttc aagtcagaaa 2220  
tgaaagatat cagtggtgaa gaaataagat tgattcttca tatggagtgg acattttttc 2280  
cagactataa aactgaatct tgctgaattt aaagagaaat tctggccgag gcggatggat 2340  
cacctgaggt taggagtttc agaccagcct ggtgaaaccc ggtctctact aataaactac 2400  
ggagattagc tgatttgtgtt ggcattccacc tgtagcccag ctgctcggga ggctgaggca 2460  
gaagaattgc ttgaaccggg gaggcgaaga ttgtggtgag ccgagattgt gccattgcac 2520  
tacagcctgg gtgacagaat gagactcata aaaaaaaaaa taaattctgc ttcttttatt 2580  
ttctacttct cttcagattt gtttctcgta tgtattttcc aactatgtat gcatcacagc 2640

ccttcttttt ctgagttata gctacagttt tctgactggt ctcttcacgc catttcattt 2700  
cgcttggtat tttgtagatt ttgatgacaa aattctattt ttagtgcact taaaaatgga 2760  
ttttaactgg tgagttcgct tatcaatata acattcagat tagttaatta ggataaaagc 2820  
caggtgtggt ggctcacgcc tctgatccca gcactttgag aggccgaggc aagtggatca 2880  
cttaagctca ggagttcgag accagcctga ccaacatggt gaaaccccggt gtctactaca 2940  
aatacaaaat tagccacatg ttgtggcgca tgcctgtggt cccagctact cgggaggctg 3000  
atgcgggaga gtcgcttgaa cccgggaggc ggaggttgca gtgagccgaa attgcgccat 3060  
tgactccgg cctggacaag agcaaaactc tgtctc 3096

<210> 1373

<211> 4035

<212> DNA

<213> Homo sapiens

<400> 1373

atttatgcac tgaaagctcc taaatctttt cctaaagggtg atatatgggtg gaatcctgaa 60  
caactgaaag aagacagcag ggactatctg cacttgctca ttgggctggt tgagatgatg 120  
ctcaatgggtg ccgatgctgt tcatttcaga gttctgatga aacttttcat aaagggtgcat 180  
ctagaagatg tttttcagtt attcaagttc tgttctgttt tatggacctg tggttctagc 240  
ctttcaaact cactaaactg cagtgtgaaa acagtgctgc agactcaagc tctttatgtg 300  
ggctgtgcaa tgctttcttc tcagaagaca cagtgtaaac accaactggc atccatatct 360  
tctccagtgg tgacatcttt actcattaac ctgggaagcc ccgtaaaaga agttcgtagg 420  
gctgccattc agtgtctcca ggccctcagt ggagtggcat ccccgtttta tctgataata 480  
gatcatttga tttctaaagc agaggagatc acttcagatg ctgcctatgt tattcaggat 540  
ttggctactt tatttgagga actacagaga gaaaagaaac tgaaatctca tcagaagttg 600  
tctgaaactt tgaaaaactt acttagttgt gtgtatagtt gcccatctta tatagcaaaa 660  
gatttgatga aagtacttca gggagtcaac ggtgagatta caaaaccatt ttttgcagcc 720  
atatcagatg aaaaagttca gcagaagctt ttaagaatgt tgtttgattt attggtgaac 780

tgtaaaaact cacattgtgc tcagactgtc agcagtgttt ttaaagggat ttccgttaat 840  
gctgaacaag tccgaataga actggagcca ccagataaag ctaaaccctt gggcacagtt 900  
cagcaaaaaa gaaggcaaaa aatgcagcag aaaaaatcac aagatctaga atctgttcag 960  
gaagttggag gttcttactg gcaaagggtta actctcatcc tggaattact gcagcacaaa 1020  
aagaagctca gaagtcctca gatattgggtg ccaactcttt ttaacttgct atcaagatgt 1080  
ttagaacctt tgccacaaga gcagggaat atggaataga ccaaacaatt aattcttagt 1140  
tgtctgtcaca acatctgcca aaaactatct ccagatgggtg gcaaaatacc caaagatatt 1200  
ttagatgagg agaagttcaa cgtggagttg atagttagt gcacccgcct ttccggagatg 1260  
ccgcagaccc atccatgc ctttttactt ttgggcactg ttgctggaat atttccggat 1320  
aaagttttac acaatatcat gtctatTTTT acatttatgg gagccaatgt catgcgccta 1380  
gatgatactt acagttttca agttattaac aagacagtga aaatggttat tcccgcactt 1440  
attcagtctg atagtggaga ttctatagaa gtttcaagaa acgttgaaga gattgtggta 1500  
aaaatcatta gtgtatttgt ggatgcgctg ccacacgtcc cggagcacag gcgcctgccc 1560  
atccttggtc aacttggtga tacactgggt gcagagaaat tcctctggat tctcctcatc 1620  
ttgctttttg aacagtatgt cacaaaaaca gtgctggcgg ctgcctatgg cgaaaaggat 1680  
gctatttttag aagcagacac tgaattttgg ttttcagtct gttgtgagtt tagtgtccag 1740  
catcagatac aaagcttgat gaatatcctc cagtacttac taaagctgcc agaggaaaaa 1800  
gaagaaacca ttcccaaagc agtgtcattt aataagagt aatcacaaga agaaatgcta 1860  
caggttttta atgtagagac tcacactagc aagcaactgc ggcatTTTaa atTTTTgtca 1920  
gtgtccttca tgtctcagct cctgtcttcc aataattttc tgaaaaaggt agttgagagt 1980  
ggtggtcctg agatttttaa aggccctgaa gagaggttgc tggagaccgt tctcggtat 2040  
atcagtgcag ttgcacagtc catggaaagg aacgcagaca aactcacct gaagttctgg 2100  
cgcgcgctcc ttagtaaagc ttacgacctg ttagataagg tcaatgcctt gctgccaca 2160  
gagacattca ttctgtgat cagagggtg gtgggcaatc ccctgccatc tgttcgccgc 2220  
aaagcgctgg accttttgaa taacaagctg cagcaaaata tatcctggaa gaagacaata 2280  
gttaccggtt tcctaaaact ggttccagac cttttggcca ttgtgcagcg taagaaaaag 2340  
gaaggggaag aagaacaagc aatcaacaga cagacagcgt tgtatactt aaagctttta 2400  
tgcaagaatt ttggtgcaga aaatccagat cttttgtcc cagtgtgaa cactgtgtg 2460  
aaactgattg ctccagagag aaaggaggag aagaatgtcc tgggaagcgc gctgtgtgc 2520

atagcagagg tgacctccac cctggaggcg ctggccatcc cccagcttcc cagcctgatg 2580  
 ccaccgttgc tgacaacaat gaagaacacc agcgagctgg tctccagcga ggtctacctg 2640  
 ctcagtgcct tggctgctct gcagaagggt gtggagactc tcccgcaact catcagcccc 2700  
 tatctggaag gcattctctc ccaggtgatt catctggaga aaatcactag tgaaatgggt 2760  
 tctgcgtcac aggctaatat ccgtctcaca tctcttaaaa agacactggc taccacactt 2820  
 gcacccccgag tcctgttgcc cgccatcaaa aaaacttaca agcagattga gaagaactgg 2880  
 aagaatcaca tgggtccgtt tatgggcatac ttgcaagagc atattgggggt gatgaagaag 2940  
 gaagagctca cctcccatca gtctcagcta accgcctttt tcctggaggc cctggacttc 3000  
 cgagcccagc actctgagaa cgatctggag gaagttggaa aaacggaaaa ttgtatcatt 3060  
 gactgtctag tagccatgggt tgtcaaactt tccgaggtca cattcaggcc cctgtttctt 3120  
 aagctgtttg attgggctaa aacagaagat gccccaaagg acaggttggt gacattttac 3180  
 aacttggcag attgcattgc tgaaaagctg aaagggtttt ttactctgtt tgccggccac 3240  
 ttagtgaagc cttttgctga caccttgaac caggtgaaca tctccaaaac agatgaagca 3300  
 ttttttgact ctgaaaatga ccctgaaaag tgctgcttgc tgttgcaagt tattttgaac 3360  
 tgtttataca aaatcttctt ttttgatacc cagcatttta taagtaaaga gagagcagaa 3420  
 gccttgatga tgcctctgggt ggatcagctg gaaaacaggc ttggggggaga agagaaattc 3480  
 caggaacggg tgacaaagca cctgatacca tgcatacgac agttttcgggt ggccatggcg 3540  
 gatgactctc tttggaaacc actgaactac cagattctgc taaagacgag agactcctcg 3600  
 cctaaggttc gatttgctgc tttgattact gtgttagcac tggctgaaaa actaaaggag 3660  
 aattatattg tcttgctacc agaatccatt cctttcttag cagagttgat ggaagatgaa 3720  
 tgtgaagaag tagaacatca gtgccaaaag actattcagc aactggaaac tgtcctggga 3780  
 gagccactcc agagctatct ctaagacttt ctgtggtgtt tcatactcta ctcagagttc 3840  
 acactcatat ttcataatct tatttttggg tgttgggtgc catgttactt ttggtgcctt 3900  
 aatacaccta cttggattac ttacaaatgt tttatcactt ctttacaaaa tccccacctg 3960  
 gcttgtgctg ccacataagc ctctcctgcc tatcgtatag agctgcagaa agagtaaagt 4020  
 atacacggta ttttt 4035

&lt;210&gt; 1374

&lt;211&gt; 2186

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 1374

```
cttgccattg ttggtcaccc ggccaagcct ctctgcctca ggcgttctcc cagaagatct 60
gcccaactctc ttccccacac cagcccctag agactgaact gaaaaccctc ctcagcaggg 120
agcctcttct gattaacttc atccagctct ggtcacccat cagctcttaa aatgtcaagt 180
ggggactgtt ctttgggtatc cgttcatttg ttgctttgta aagtgttccc atgtccttgt 240
cttgtctcaa gtagattgca agctcaggag ggtagactgg gagcccctga gtggagcctg 300
ctcaggccgg ggctccctga gggcagggct ggggctgttc tcatactggg gctttctgcc 360
ccaggaccac accttcctgt cctctctgct cttatgggtgc cggaggctgc agtgaccag 420
gggccccag gaatggggag gccgcctgcc tcatcgccag gcctcctcac ttggccctaa 480
ccccagcctt tgttttccat ttccctcaga tgtgacaagc cgaggcggtg agccgggcag 540
gaggaaggag cctccctcag ggtttcggga accagatctc tcaccaggaa agactgatac 600
agaacgatcg atacagaaac cacgctgccg ccaccacacc atcaccatcg acagaacagt 660
ccttaatcca gaaacctgaa atgaaggaag aggagactct gcgcagagca ctttgggtcc 720
ggagggcgag actccggcgg aagcattccc gggcggtga cccagcacgg tccctcttgg 780
aattggattc gccattttat ttttcttgct gctaaatcac cgagcccgga agattagaga 840
gttttatttc tgggattcct gtagacacac ccaccacat acatacttt atatatatat 900
atattatata tatataaaaa taaatatctc tattttatat atataaaata tatatattct 960
ttttttaaat taacagtgtc aatgttattg gtgtcttcac tggatgtatt tgactgctgt 1020
ggacttgagt tgggagggga atgttccac tcagatcctg acagggaaga ggaggagatg 1080
agagactctg gcatgatctt tttttgtcc cacttgggtg ggccagggtc ctctcccctg 1140
cccaggaatg tgcaaggcca gggcatgggg gcaaatatga cccagttttg ggaacaccga 1200
caaaccagc cctggcgctg agcctctcta ccccaggta gacggacaga aagacagatc 1260
acaggtacag ggatgaggac accggctctg accaggagtt tggggagctt caggacattg 1320
ctgtgctttg gggattccct ccacatgctg cacgcgcatc tcgccccag gggcactgcc 1380
tggaagattc aggagcctgg gcggccttcg cttactctca cctgcttctg agttgcccag 1440
```

gaggccactg gcagatgtcc cggcgaagag aagagacaca ttgttggaag aagcagccca 1500  
 tgacagctcc ccttcctggg actcgccctc atcctcttcc tgctcccctt cctgggggtgc 1560  
 agcctaaaag gacctatgtc ctcacaccat tgaaccact agttctgtcc cccagaggaga 1620  
 cctggttgtg tgtgtgtgag tggttgacct tcttccatcc cctggtcctt cccttccctt 1680  
 cccgaggcac agagagacag ggcaggatcc acgtgcccac tgtggaggca gagaaaagag 1740  
 aaagtgtttt atatacggta cttatttaaat atcccttttt aattagaaat taaaacagtt 1800  
 aatttaatta aagagtaggg ttttttttcc agtattcttg gttaatatatt aatttcaact 1860  
 atttatgaga tgtatctttt gctctctctt gctctcttat ttgtaccggg ttttgtatat 1920  
 aaaattcatg tttccaatct ctctctccct gatcggtgac agtcactagc ttatcttgaa 1980  
 cagatatatta attttgctaa cactcagctc tgccctcccc gatcccctgg ctccccagca 2040  
 cacattcctt tgaaataagg tttcaatata catctacata ctatatatat atttggaac 2100  
 ttgtatttgt gtgtatatat atatatatgt ttatgtatat atgtgattct gataaaatag 2160  
 acattgctat tctgtttttt atatgt 2186

<210> 1375

<211> 2286

<212> DNA

<213> Homo sapiens

<400> 1375

acagagccgt aaaggcgcgc gggaacatgg ggctgtatgc tgcagctgca ggcgtgttgg 60  
 ccggcgtgga gagccgccag ggctctatca aggggttggg gtactccagc aacttccaga 120  
 acgtgaagca gctgtacgcg ctgggtgtgcg aaacgcagcg ctactccgcc gtgctggatg 180  
 ctgtgatcgc cagcgccggc ctctccgtg cggagaagaa gctgcggccg cacctggcca 240  
 aggtgagggg aggggaggga cggggaagtg aaccccgacg gtcagcgctt tgtcatctgg 300  
 tctcagctct gctgccgtgc acggcgggac tggagcaagt cgctcatctg aatgagtat 360  
 gagccgacct tccctgggtt acgaattaag atgggatgaa aatgctttaa ctttgagtgt 420  
 tttgaaggat taaataaccg aagtacaaag tggtagtggc ggagactgta aggaagtcgg 480

gcgtggcggc ggcacactgt ggtcccagct actcgggagg ctgagggagg aggatcactt 540  
gagcccagga ggtcgaagct gcagttagct atgatctggc cactgcactt cagcctgggc 600  
gacagagcta gaccccatc taaaaagaaa acccaaacc acgaaagggt aatgttggca 660  
agaagtggg tgcagaggtg tctactgggtg aacatcgggtg gagaaagggt ctaaggctgg 720  
gaagcgagac gccaggttcc gatcctgttc tgtagttaat ttctgggtg atcttggata 780  
aggtatccca cctgtatctt gtcaggtgat ctgttttagcc attccattgc cggggctcca 840  
ttagagttag ttctaaggca ttcattgttc atgcttaggg catttttgtt tttgtctttg 900  
ttccctcatt cccaggtgct agtgtatgag ttgttgttgg gaaagggtt tcgaggggtt 960  
gggggccgat ggaaggctct gttgggccgg caccaggcga ggctcaaggc tgagttggct 1020  
cggctcaagg ttcactcggg tgtgagccgg aatgaggacc tgttggaagt gggatccagg 1080  
cctgggccag cctcccagct gcctcgattt gtgcgtgtga acactctcaa gacctgtcc 1140  
gatgatgtag ttgattattt caagagacaa ggtttctcct atcagggtcg ggcttccagc 1200  
ctcgatgact tacgagccct caaggggaag cattttctcc tggaccctt gatgccggag 1260  
ctgctgggtg tccccccca gacagatctg catgaacacc cactgtaccg ggccggacac 1320  
ctcattctgc aggacagggc cagctgtctc ccagccatgc tgctggacc cccgccaggc 1380  
tcccatgtca tcgatgcctg tgccgccccca ggcaataaga ccagtcactt ggctgtcttt 1440  
ctgaagaacc aaggatcttt gcctttgacc tggatgccaa gcggctggca tccatggcca 1500  
cgctgctggc cggggtggc gtctcttctg gtgaactggc tgaggaggac ttcctggcgg 1560  
tctccccctc ggatccacgc taccatgagg tccactacat cctgctggat ctttctgca 1620  
gtggctcggg tatgccgagc agacagctgg aggagcccgg ggcaggcaca cctagcccgg 1680  
tgctgtgca tgccctggca gggttccagc agcgagccct gtgccacgcg ctactttcc 1740  
cttccctgca gcggctcgtc tactccacgt gctccctctg ccaggagaag aatgaagacg 1800  
tggtgcgaga tgcgtgcag cagaaccgg gcgccttcag gctagctccc gccctgcctg 1860  
cctggcccca ccgaggcctg agcacgttcc cgggtgccga gcactgcctc cgggcctccc 1920  
ctgagaccac actcagcagt ggcttcttcg ttgctgtaat tgaacgggtc gaggtgccaa 1980  
gctcagcctc acaggccaaa gcatcagcac cagaacgcac acccagcca gccccaaaga 2040  
gaaagaagag acagcaaaga gccgcagccg gtgcttgac accgccttgc acatagcaga 2100  
ggctccgggc tgactcctc ctggtgggaa aggaagatgc ctgtcctctc cgtggaggac 2160  
cctgggccct caccgcagga agcagtttgg gttttgaaag gttattgggt cccttcttg 2220

ggctgtgttc ttgctggtga gcaaagtgtt gcctgcaaaa ataaaatgca gaacgtactc 2280  
tacgat 2286

<210> 1376

<211> 2156

<212> DNA

<213> Homo sapiens

<400> 1376

agtgcggacg tcgccattcc tggcccatgg gaagattgcg tttcacctgc tcctgaaggc 60  
cgaaggtggc tctagcgcac cttttgtcgc gccgtgacct gcaggtactg acagatccgt 120  
agggaggaca ccgtgacttc ccggacgctg ggaaatgggtg agtgtgcggg gccagtgtcc 180  
gaggggagggt ttctggttgg aaccgtctgt ggccgaggcc ggggacctcc ttgcagtcaa 240  
ctccgggggtt tgcagaccgc gggggccaccg cgggcgcagt tcggccctcg gtcctctctg 300  
tgggagctgg acccgagcc gggagcccca gcgtcctgtc ccgtccccgc ggggcgacct 360  
cggcccccg ccctggagcc ctctatgggc agctctgcgc ccgcagcccc gcgtctcccc 420  
ggattgttcg gtgacagcgg gagggctcctg gggagatccc atctcggctt gtggggtttg 480  
tgcgtttaag aaaccacttg gttggaaacc ttacgatgaa tccacgggtg cgtttcctca 540  
cttgtgagaa ccgaagcctg gctaggtcct tgctgccggg gtcaggttcc tgtggctgtt 600  
caaacgcccc tgcctcacc accagggaact gacccccctt agtgcctcca gactcaagt 660  
ctgggggtgt ttttgacctt ctgaatgtgg gctttctttt cgaactgcgg ggaaggggac 720  
tccttatctt aactgatcag aaagtttgtg tttcttcctt ttggactcct tgatcaaata 780  
ttaattctag ccacccttaa ttccagtttc ccttcgctct gggtaatttt gttcccttgc 840  
gtgaatgtgt gcgattttta gtttctttgg tttctggatg gaatttattg tgagcttgtt 900  
caggttcttt taaattttct tgtttgtgtg tgtttatctg tgtggtttct acccaagaga 960  
tttcgcctat gttggagtgc catgatgatg caaaatctct gtatgtcatt tgttccgtat 1020  
ataagtggta agcatttttt tttgtgtgtg acggagtctc gctctgtcgc ccgggatgga 1080  
gtgcagtggc gcgatctcca gctcgctgca agctccgcct cccaggttca agccattctg 1140

cctcagcctt cccagtagct gggactacag gcgcccgcga ccacgcccag ctaatttttt 1200  
 tgtatttttta gtagagacgg gcggatcacc tgaggtaagg agttcaagac caccctgacc 1260  
 aacatggtga gatccatctc tactaaaaat aaaaaaaaaa attagccgag cctggtggca 1320  
 cacacctgta atctcagcta ctcaggaggt tgaggcagga gaattagaat tgcttgaacc 1380  
 caggaggcag aggttgcagt gagctaatagc cactgcactc cagccttgag actctgtctc 1440  
 aaaaaaaact aactaaataa ataaaggtag tttgcatata ttgtagccaa gcttgccacg 1500  
 aatgtgaatt tagtatgtgt tgaattatgt cagattctga atggtgctgt gtctgttcat 1560  
 tcagtttgat ttgtaaagct tatcgggtcta ggtatatgta gccatttttag taaattatat 1620  
 tgaaaaatgg gtgagggtaa ggtttttcac ctgtaggatg atgaaataca gctctaatat 1680  
 atgttaaggt ggaagcatat taatgttgggt catcccttaa aatatgtgtc tcattgggtg 1740  
 attctgtaca ttttttttta taagtttctc agttgtgggtg tttaattgggt acccttgaaa 1800  
 acaagtatat ttaggacaac tctgtctaca taatcttctg ttgttttagc atgtgtttca 1860  
 gaagtcgtgt gtgtagggcc ggggtgtgggtg gctcatgcct gtaatcccag cactttgaga 1920  
 gaccgagatg ggtgaatcac ctgagtcagg agttcgagac cagcctggcc aacgtggtga 1980  
 aactttgtct ctctgaaaa tacaagaaat tagctggatg tgggggctgg cgcctgtggt 2040  
 tccagctact cgggaggctg aggcaggaga attgcttgaa cccaggaggc tgaggttgca 2100  
 gcgagctgag attgcgccat tgcactccag cctggatgac agaggaagac tgcctc 2156

<210> 1377

<211> 2254

<212> DNA

<213> Homo sapiens

<400> 1377

aatatctcgt catggactgt gccccgctcg agcctctcca catgcagccg gaaggaaagt 60  
 ggagggagct gctcctttcc gtagccgggg tgcccacccc aaccaggctg cctctgccac 120  
 ccaagacaga ggttctctga taataatttg tggggcttgt ttccagagac cacacctgaa 180  
 gctgccaact ccccggaggg aaggtcctga ttaatggccg atgaatttct ccttaaggcc 240

ctgaaactgc ctactcagaa ccaagccagt ttttctgcc tgtcctgttt gggcaggcag 300  
aggaggcagc tagaaacca ttatgcaggg gatggggacc aaaccaatgc acaactccta 360  
cgtactgatg gtggtcttac gtttcctaa gtttctgccg actaaactgt gcacacgttc 420  
tcaggacctc ctgaagctgc gtcacaggcg ctgatcaaag aacacaacca agagtttggc 480  
cttttcttca gcaactggaa ttgtgatcca aagcttttcc tgatgaggta caaagttgga 540  
gaaacaaaac gcaactaag caacaatgaa acagaacaga gtgaatctgc tgtagctcaa 600  
gagaggacgt agctgcccc accccgcac cccgggctcg gggttgcctt gctgacctct 660  
gctgccacct ggtgccgcac agagaaactg aggagaaacc acatcagtct ccttcagcct 720  
cagcttcaca tctgtgggtc aagcaacctt ttcagaagct gtataatgtg ggaaagcttt 780  
cctctcagga aaatgcacac atccaacttt gagaagatgc ccttgggggt gcttcaagga 840  
tcctagataa taacccctt tcccgaacat ccaagaacct aagttttttt tttttttga 900  
gaaagtctcg ctctctctcc cattctggag tgcagtggcg tgatcttggc tcaactgcaag 960  
ctccacctcc caggttcaag ccattctctt gcctcagcct cccaagtagc tggggctaca 1020  
ggcacctgcc accacaccg gctaattttt ttgtattttt agtagagacg gggtttcacc 1080  
gtgttagcca gaatcgtctt gatctctga ccttgtgatc caccgcctc ggctcccaa 1140  
agtgtggga ttacaggtgt gagccaccac acctggtcca agaaccacac ttttagatct 1200  
agagtgatgt cagcatgaca ttgatttctt gagggccagg ggtgaaggag ctgaggacag 1260  
cagaggggtg aaggaagtca gctacagaca gcagcagctg atgcacaggc ctcccagcgc 1320  
ctgaagtcac ccggaattgg gaagtgtca gaagcttaca aagctgcctc gagatggcac 1380  
caaaagcgaa ggaagctcct gctcctccta aagccgaagc caaagcgaag gctttaagg 1440  
ccaagaaggc agtgttgaag ggtgtccgca gccacacgca aaaaagaaga tccgcatgtc 1500  
actcaccttc aggcggccca agacactgcg actccggagg cagcccagat atcctcgaa 1560  
gagtaccccc acgagaaaca agcttggcca ctatgctatc atcaagtctc cgctggccac 1620  
tgagtcggcc gtgaagaaga tagaagaaaa caacacgctt gtgttactg tggatgttaa 1680  
agacaacaag caccagatca gacaggctgt gaagaaggtc tatgacagtg atgtggccaa 1740  
ggtcaccacc ctgatttgtc ctgataaaga gaagaaggca tatgttcgac ttgctcctga 1800  
ttatgatgct ttcgatgttg taacaaaatt gggatcacct aaactgagtc cagctggcta 1860  
actctaaata tatgtgtatc ttttcagcat aaaaaataa tgttttcat aagaatgaca 1920  
acttaattag aatcaaatct ataagcttta agattttatg tttctagtaa gtataatatt 1980

agcttatttg actagaactc aagcagaata ggaatttatg ctgtttttat attcaataat 2040  
 aattttgaag atacagttgt tttattacac caaaaatact atattaatct tatttaacta 2100  
 agttttatcc aaatcatgtt aacttaagaa acatttgatc agttcctata tttctaggag 2160  
 tttggtgaat atttatttat aaatgcttat ttttttccaa gccaggttag aatagagcac 2220  
 ttttagagga tttcataaat gaattttgca atgc 2254

<210> 1378

<211> 2831

<212> DNA

<213> Homo sapiens

<400> 1378

catggtgctc tgtaatccca cctgtaatcc cagcatttta ggaggcagag gcaggaagat 60  
 tgcttgagcc taggagttca agaccagcct gggcaacata gcaagaccgc tctctacaaa 120  
 aaaaaacaaa aaaaaacaaa caaacaacaaa aattagccag gtgtggtggt gcacgcctgt 180  
 ggtcctagct actcgggagg ttgaggtagg aggatttctt gagtctggga ggtcaaggct 240  
 acagtgagcc aagatcacac cactacactc cagcctgggc aacagagcga gaccctgtct 300  
 ttaaaaaaaaa aaagtccttg agtcatgatt ccagatgcaa tcgcagatat gggggctgca 360  
 accctccgat gggctggggg tcacgtctac accacatggc tggagcacag gccaggaggg 420  
 gctccggctg gggaagcatg tggggagcct ggctgtggga cccaggcggc cccgggccct 480  
 gtcgccctgc agtgcaggtc agctctgcgg acgctcggct catggtcttt gacaagacgg 540  
 aaggggacgtg gcggctgctg tgctcctcgc gctccaacgc cagggtagcc ggactcagct 600  
 gcgaggagat gggcttcctc aggtactggg ggccctcgga ggggtgggag ccgggagggg 660  
 ctggggagca ggcctaacct ctgccccgcc cagggcactg acccactccg agctggacgt 720  
 gcgaacggcg ggcgccaatg gcacgtcggg cttcttctgt gtggacgagg ggaggctgcc 780  
 ccacaccagc aggctgctgg aggtcatctc cgtgtggtga ggagggcagc gggcaggtgg 840  
 ggcaacacct cagaccccca aggcactccc tctccccgtt ttccttccac ctgtcttaac 900  
 tggctctctat ttcctttctt tctgtgtctc caatcccatc tctcccagtg attgccccag 960

aggccgtttc ttggccgcca tctgccaagg tgagatccta aaactcagaa ccctctcctt 1020  
taggcccttg gggaggccac gtcccctcaa gctccccagg atggggccat gtactttcag 1080  
acccccctagg gcagggccaa gcctgggctc tggggacctg ggctccagtc ccctgtcgcc 1140  
gccccctgc tgacccttgt cccacagact gtggccgcag gaagctgccc gtggaccgca 1200  
tcgtgggagg ccgggacacc agcttgggcc ggtggccgtg gcaagtcagc cttcgctatg 1260  
atggagcaca cctctgtggg ggatccctgc tctccgggga ctgggtgctg acagccgccc 1320  
actgcttccc ggagtgagtg cccccaatg gcgctgatga tggggaggca gaggagcgga 1380  
gagacagtgg ggaggagggc ggattgtgcc caggcaggtg gccaccctcc acccctttcc 1440  
ctggtaggcg gaaccgggtc ctgtcccgat ggcgagtgtt tgccggtgcc gtggcccagg 1500  
cctctcccca cggctctgcag ctgggggtgc aggctgtggt ctaccacggg ggctatcttc 1560  
cctttcgga cccaacagc gaggagaaca gcaacgatat tgccctggtc cacctctcca 1620  
gtcccctgcc cctcacaggt aagtctaagg gctgagccat ggggcttgag gacccgaggc 1680  
caggaggaca gaggagggga ccaggggcac aaggcaatca acttatggct caggcatcct 1740  
tggcaataag gggaatgatc tcgagggagc acaaagtggg ccttaactat caatgatcag 1800  
tgcagccaat ttggaaaatt tgccagcatt tccccaagaa gtatacataa agttaccatt 1860  
ggacccaaca cttccactcc caggacagga ggtatatacc taagacaaat ggaaactgtg 1920  
tctgcaccaa aactcgtaca tcagtgttca tagcagcatt attcataata gcccaaagat 1980  
ggaaacagcc caagagtgtt tcatcggaca aatgcataaa gaaaatgtgg tatattgacc 2040  
gggcgcggtg gctcatgcct gtaatccag cactttggga ggccgaggtg ggtggatcac 2100  
gaggtcagga gtttgaacc agcctggcca acatggtgaa actccatctc tactaaaaat 2160  
acaaaaatta gcctggcgtg gtggcacacg cctgtaatcc cagctactcg ggaggatgag 2220  
gcaggagaat ctcttgaacc cgggaggtgg agattgcagt gagccgagat cacaccactg 2280  
cactccagcc tggtgacag agcaaggctc tgtcatcttg aaaataaata aataaataac 2340  
aaaaaaaaatg tggtatatcc acacaacggg agaatatgg accatagaaa tgaatgaggt 2400  
actgattcat gctaccacaa ggatgaaact tgagaacagt gctgaatgag acaagccagc 2460  
cgcaaaggcc acatactgta ggatgccact tgtatgaaat gtacaaggct gggcacggtg 2520  
gctcacgcct gtaatcctgg cactctgggc agctgagatg ggaggattgt ttgtgctcag 2580  
gagtttaaga ccagcctggg caacatagca agaccccatc acttaaaaaa atgagctagg 2640  
tgtggtgacg gatactgta gttccagtta ctcaggaggc taaggcagga ggatcacttg 2700

agcccaggag tttgaggctg cagtgggcta ggattgtgcc actgtactcc agcctgggta 2760  
acagagcaaa accttgtctg ttaaaaaaga agaaagaaag aaagagaaag aaaagaaagg 2820  
aaggaaggaa g 2831

<210> 1379

<211> 1797

<212> DNA

<213> Homo sapiens

<400> 1379

agaagggcgg ggggtgccgcg agcatgttgg ggggtggccag tggctacagc caaggggtgag 60  
cgggtccagt gtggagcccc ggagtaagtg gcaggctgtg gccatgacca atacagccca 120  
cgcattctgtc tggagtgggtg agtacctgga ccctcccatc cctgcaggct gctggtggac 180  
cggttctcag gccggttctg ggcctggctg gaacgggagg agttcctggt cccaagaat 240  
gtgctggaca tcgtggcggg acagacggtc acctggatgg gcctcttcta ctgccccctg 300  
ctgccccctgc tgaatagcgt ctctctcttc ctacattct acatcaagaa ggtgacggct 360  
catggctggg ggggtatggg ttcgtgcctc tgggtggatg ccttgagctg ggctcgcctc 420  
ctgctcctgc tcctgcccc ttcctgggt gtcagcccc tggggtctgc ataactcgct 480  
gactcctggt tgctattgct tgcgccccca gtacaccctc ctgaagaact ccagggcac 540  
ttcgcgcccc ttccgtgcct ccagctccac cttcttcttc cagctagtgc tcctcctggg 600  
cctgcttctg gctgcagtgc ccctgggcta tgtggtcagc agcatccact cctcctggga 660  
ctgcggcctc ttcaccaact actcagcacc ctggcaagtg gtcccggagc tgggtggccct 720  
tgggctcccg ccattggcc agcgtgccct ccactacctg ggctcccacg ccttcagctt 780  
ccccctctc atcatgctca ggttctcagg gcagcagggg ccatgggagg ggacacctgg 840  
agggggaggt ccttccttcc atgggggtgg tgagcctgtg caccaccaac caggagccag 900  
acgcagaaag ccaagggaag caggggcctc tgaaaagcag gaacctcctg ggcccacct 960  
ctgggctgcc atggggattg caggatcact ggggaagcac cgtgtctggg tggctgcagc 1020  
tgctgagcta ttggtattgc tgtgccagag gggaggggat gaggggctct gcgaggaagg 1080

agaggagggt ctcacacctca gatacagcag tgtgcagtga gaagacccca gtaccgcgta 1140  
 ttgtagagat tgagggtggg agagaggaag tcaggagag ggcctgtgg cccaggggc 1200  
 aactgaccac gaatccccctt cccacccaag ccttgtcctg acggtgtgcg tctcccagac 1260  
 ccaggccaat gccagggccca tccacaggct ccggaagcag ctggtgtggg tgagtgtcct 1320  
 cggggctggt gaggggacag cagcttcagt ggaaaccctt ccctatgtgt ggccgagggc 1380  
 ctagaacacg tctgagcggg tcagggtggg tcttcccact ggagggcgtg gcctcaggct 1440  
 gagagtggag acggggaagg ggaggaagag aacagctcgg gctcctgaga ccaggagcca 1500  
 gacctggtaa gtacatgacc ttaggggctg ggcctttgcc tgtaatcca acgctttgga 1560  
 ggcccaggca ggaggatcgg atcacttgaa gccatgagtt aaaaccagcc tgggcaacaa 1620  
 agcaagaccc tgggtctccac caaaaataag taattaattt tttaaaagga gaatgtggcc 1680  
 gggcgtgggtg actcacgcct gtaatcccag cactttcaga ggccgagggtg ggtggatcac 1740  
 ctgaggtcag gagttcaaga ccagcctggc caaaatagcg aaaccccgctc tctactt 1797

<210> 1380

<211> 1915

<212> DNA

<213> Homo sapiens

<400> 1380

acagtaacag cccacacctg gaattgtccg cagtcctggg cggggtcact cacagtaaca 60  
 ggccacacct ggaattgtcc agcattcctc aacaggaaac agttaagaa agtgtgtcta 120  
 accacacatg gaaggccact gggcaatgaa aatgcatgaa cttctggcgt ccacaatcta 180  
 gtggatgaat ctcaaaagat acttcgagca aaaacaccgg acagaagcgt ccgtgccagc 240  
 cccgcaggct gcctgtgtgc caggctatcc cgtgccatct gatccgggag aagcaggact 300  
 ttcttgaca gggctcttcag gaactggata ttgtgccagc cagttttctg taattagtca 360  
 tctcagaaca atttttctcc ctgagctgcg gcccctccca aggctcagct tggaggacac 420  
 caacaatgag gacaccaaca atgagcacct cctgggcagc cctgaggacc cacacatgga 480  
 ggccgcacag cccagcccct accctgaggc acaccgtcta cacaaacccc ggcctggacc 540

cagcctcatg gccacaggc aggtcctgag gacaccaca gcattgctgt gagccacttc 600  
ctgcacagtg cgcgggcagg atcaggacat agctgctgga gcctccaccc tgaaaacccc 660  
actcttccca gagcccagag gccagggcag gtccccagct gtgcacagcg ctgtttaacc 720  
caggcccttg ctctttgagc tcagcctctg ggagagttaa acacagaaaa ggccctgccc 780  
tggcctccta agatgaaaat ctaggtgggg acggggggca caagtgtagt taaacacctg 840  
tgagcaaagc actgctgtgg atggatttgc ggggaacaca ttgacaccct accctttcca 900  
cacagagaaa cacaacata ctcatgcaca ctcacacaca tgcacactca catgcatgca 960  
cactcacacg catatacaca ttcacacaca cgcacaatgt tcacactcac acgcacaatg 1020  
ttcactca cacatgcaca taatcacaca tgcattcaca ctcacacgca tacacacaca 1080  
tgcacacaca cccatattca ccatacaca cactgacaca catgctgaaa cacaccaca 1140  
catgcataca cacaatgcat gcatacttac aagtacacac atatacacac acatttgcat 1200  
acatacagtt gcatgcagag agcttcacac atgcacacac aggcattcac aagctgtccc 1260  
acacatgcac atacactctc actgacactc tcagacacac atgcatactc gcgctcacac 1320  
tcatgcacac aacacaagcc acgcgagcag cagccaagaa gcacatggcg tcaggtgcgc 1380  
cctccctcac ctatgacca gccaggcggc atcctgcatt ttaaatacaa cggctcccc 1440  
cagcccttca ggtcttcttc tcaccgatca agtgtgtgtt cacgcgtgtg ttcttgacat 1500  
cccccttggc atggggctgt gcttcagcc tgcagaatct gcatgtggct ggtgagagcg 1560  
atccctgggg acattgccag gaagcctccc acagccggga agcagcgctg aggtatagga 1620  
gggagcttct ctgggggcct ggaagggtta actgagactg ttaggcgtgc tctcaaatga 1680  
ttacacaaat cactgttgta aatcacaata tccctgactt tggaattttt atcttgtttt 1740  
caggtaaaga tcacttggtt ctgctgaaag tcaaaagcag cccctattgt tgttttttaa 1800  
ataactctct aattaaaacc aaacaattct gtagactctt ccataggaaa tatattcatg 1860  
aggctgatgc ttatagaaag ttttatcttg tgagttatta aataaaaatg cattc 1915

&lt;210&gt; 1381

&lt;211&gt; 1811

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 1381

caatatgagt ttactcagag acagtagaaa ctattcccag gaaactgtgc ctaaggccaa	60
tttcggtttc tctggcatta gtccattaga agatgaaata aacaaagggc taaaatctc	120
aggcctgcaa tactctatac ctgacaccga gaaccagacg ctgaattacg gaaagacaaa	180
ggagatggaa aagcaaaata cggataagtg tcacgtttcc tctcacacta gactaacaga	240
atcaagcgtg catgatttta aaacagaaga tcaagagggt atcacgacag attttggcca	300
agttgttcta agaccaagg aggcaaggca tgctaacgtg aaccctaatt aggatggaga	360
atcaagttca agttctccca ctgaagaaaa tgcagccact gacaatattg ctttcatgat	420
taccgaaacc actgtccagg ttctttccag tggggagggt catgatattg ttagccaaaa	480
gggagaagac atacagacgg ttaatatcga tgccagaaaa gagatgacct ccgacaaga	540
agggactgac aatgaggatc cagtcgtgtg cctggacaag aaaccagtga tcatcatttt	600
cgatgagccc atggacatcc ggtctgccta taagagactt tcaactatct ttgaggaatg	660
tgatgaggaa ttagagagaa tgatgatgga ggaaaagata gaggaggagg aagaggagga	720
aaatggggat tctgtagtcc agaataataa cacttcccag atgtctcata agaaggtggc	780
cccaggcaat cttagaaccg gacaacaggt ggaaacaaag tcacagccac actccctggc	840
cacagagacc agaaaccag gaggacagga aatgaacaga acggagctga acaagttcag	900
ccacgtggat tctccaaatt cggaatgcaa gggtaggac gcgaccgatg accagtttga	960
aagccccaag aaaaagttta aattcaaatt ccctaagaag caactcgccg ctctcactca	1020
agccattcgc accggaacta aaacaggga gaagactttg caagtggtag tctatgaaga	1080
agaggaagag gatggcacc tgaacagca caaagaagcc aagcgcttcg aaatcgctag	1140
gtctcaacct gaagacacc ctgaaaacac agtgaggagg caagagcagc ccagcatcga	1200
gagtacatct ccgatttcaa gaactgatga aattagaaaa aacacctaca gaacattgga	1260
tagcctggag cagaccatta aacagctcga aaatacaatc agtgaaatga gtcccaaagc	1320
cctagttgat acctcatgtt cttccaacag agattctgtt gcaagttcat ccacatagc	1380
ccaagaggcc tctccccgac ctttgctagt tccggatgaa ggtcccactg ccctagagcc	1440
ccctacgtcg ataccttcag cttcacgtaa gggctccagc ggggccccac agacgagcag	1500
gatgcctgtc cccatgagt ccaagaacag acccggaacc ctggacaaac ccggcaagca	1560
gtccaaactg caggatcccc gccaatatcg tcaggtagtt ttaccttaaa ccacttttg	1620

gatggacgct atttcagtta agcaagtcac tgacttagtt tataccaaat attgtgcttt 1680  
ctttgtaaga taacggttta catagacatc ctggatctgg gggcatgaag aaagtctaaa 1740  
taaaccctttg ttacactttt ttaccacgct tttgcatgct tgcaataaaa catcttttac 1800  
tttgtgactc c 1811

<210> 1382

<211> 1839

<212> DNA

<213> Homo sapiens

<400> 1382

ctctgacatt ggaggactcc tcggctacgt cctggactcc tgcacaagag gactcctgcc 60  
ctgccacacc ctggacacct gcactagaga accctgcccc gtcgccccct agactatggc 120  
acgggaggac ccttgccacc gacttcggca cggttaagacc cctgaccgcg cttgcaactgg 180  
attccagcac tggaggaccc cctgccacgg cgctctctgg actaccctg cgccaccgcg 240  
tcctgcacta cagcacagca ggaccgccgt cccaccgcgc actggactga ggcacagcag 300  
gaccaccact cccacatgcc ctggaccact gcaggacagg tccccactc cgccgcgccc 360  
tggaatatgg cactggagga cccccgtcct gccgctccgc ggactccacc accgaagacc 420  
ctcgcccccc tgcgccctgg acaaaggcac gggaggaccc ggcttcaccg acccgtgggc 480  
tategcatag gaaaaccccc acctccaccc ccaccccgcg ccagagactc tgacaagaga 540  
ggacccctgc cccctgctcc ccggactaca gcaaggcagg aaccaccttc ctccaagatc 600  
ctcactatgg caactgtgga cccccgcct ggtacgccct ggactaagtc accaaaggac 660  
cccgaccca caacgccgtg aactccagca ttggaggacc attgccttac tgcggactca 720  
agcactggac tategcaggg caggatccct gtcccgccat gccctacact atggcacggg 780  
aggacccagc ctcaactgtgc tctggactcc agcaccggag gactcctaca cggaggactc 840  
cggctctgcc acgtcctgga ctctgaaca agagaacccc cgccccgctg caccttggat 900  
atagcaaggc aggaatcccg ccctgtcgcg ctctggactg tggcacctga ggatccacgc 960  
cccagcgcgc cctggactac tgctccgcag gactcctgtt ccaccgcacc ctggactatg 1020

gcaccagagg acccagctcc ccgcgaccgg gactaaggca ccagaggacc cagccccctg 1080  
gcgtcttggga ctatggcgcc agaggaccca gcccctcgca tcctggacta tggcaccaga 1140  
ggacccagcc tccctgcgtc atggactatg gcaccagagg acccagcccc tcgcgccctg 1200  
gactatggca gcagaggacc cagccccctg catcctggac tatggcagca gaggaccag 1260  
cctccctgcg tcatggacta aggcaccaga ggacccagcc ccctcgggcc ctggactatg 1320  
gcagcagagg acccagcccc tcgcctcctg gactatggca ccagaggacc cagcctccct 1380  
gcgtcatgga ctatggcacc agaggaccca gcccctcgcg ccctggacta tggcagcaga 1440  
ggacccagcc ccctggcgtc ctggactaag gcacagtagg accccgcagc atcgtgtact 1500  
cctgcacagg aggaccctcg cagggctgcg tcctggactg agctactgaa ggagcctcac 1560  
ccctgcctca ccctggacta aggcactgga gaactcttgc tctgcagagc cgcggactct 1620  
tgcaggagag aacctgcgcc cagccgtgcc ctggactgtg gcacagcagg gcccacaccg 1680  
cgccatggac tcctgtactg gaggaagagt agtgacaaat gtccaggttt acaagttgaa 1740  
aagtagcaat caatgtgtta caatggatgg atttgatgta aaattacaaa tgctgaaaac 1800  
attatgtgta attgcctagc cagatcaatt acacaagac 1839

<210> 1383

<211> 2123

<212> DNA

<213> Homo sapiens

<400> 1383

agagaagggg tctcgctgtg ttgtccactc tggctcttgaa ctccagggt caactgatcc 60  
tcccttatag gcctcccaaa gtgctgggat tacaggcatg aaccaccatg cctagccctg 120  
ttttcttcct tatgtgggtt tttggggatg gattatatag gggccattca tttttgtttg 180  
tgggtggtcc gacacaattc tcatttcagt gtcattgtta ttatcaaatt gccttttagct 240  
acattggatt ttttggggtg tttttgtttt tttgagacag agtctcgctg tcagccaggc 300  
ttgagtgcaa tgggtccatc ttggctcact gcaacctccc ctctggggtt caagcgattc 360  
tcccacctca gcctcctgag tagctgggac tacagggtgtg caccaccatg cccagctaat 420

ttttgtatatt ttagtagaga cagggtttca ccgtattggc caggttggtc ttgaactcct 480  
gacctcaagt gatccgcccc cctcagcctt ccgaagtgct gggattacag gcataagcca 540  
ccatgccctg ccttatatttc ttaaattaca tatgatgaaa atgtaaaagg tttttgctaa 600  
gcctcatgta gatgccctcc acagcagtca cctgtgtgtt ttttaaactc ttgagtttag 660  
caagtgtggg tatcatcctg ctttgaggcg gaactcggca cacacacact gtgcctgccc 720  
tacagaatcc ggctttttca gcagctcaga ctgtgccatc gcctcttggg agcatgacag 780  
tggctccgtt tgtgagggga caccatccag gttgctgagt cattaggaat cacagaattc 840  
ctacggaaga aagaaataca cccagacaac cttggaccca agcacctcag ccgagacatg 900  
gatggggagc agctagaggg agctagcagc gagaagaggg aacgtgaggc tgcggaggag 960  
ggactggcct cagtgaaaag gcccagaaga gaagccctgt ccaacgatac cactgaatct 1020  
cttgctgcc aacagcagagg ccgggagaag cccaggccct tgcattgctt ggccgctggt 1080  
ttttcccctc cagtaaattg gactgtctct ccccgcttctg aagaaagcca tacaacgacg 1140  
gtttctggtg gcaatgggag cgtgttccag gcgggcccgc agcttcaggc actggctaac 1200  
ttagaagcca ggagggggtc tataggtgct gctctctcat cccgggatgt cagtgggctg 1260  
cctgtttatg ctcagtcagg agagcctagg aggctgacct aggcacaggt ggcagcgctt 1320  
cctggagaga atgctttgga acactcttca gaccaggaca cctgggacag cctgaggagc 1380  
ccgggtttct gcagcccttt gtcattctgt ggtggagcag agtccctgcc gcctgggggg 1440  
cctggacatg cagaggcagg acacctcggc aaggtttgtg acttccacct gaaccaccag 1500  
cagcccagcc ccaccagcgt cctgcctaca gaggtggcag cccctccgct tgagaaaatt 1560  
ttgtctgtgg atagcgtggc agtggactgt gcctacagga ctgtgccc aa gccagggcct 1620  
cagcctggcc cacatggatc actattgact gaagggtgtc tcagaagcct ttcgggggac 1680  
ttgaaccggt tcccctgtgg gatggaggtg cactctggcc agagagaact ggagagcgtg 1740  
gttgctgtcg gcgaagccat ggcttttgaa atttccaatg ggagccatga gttactgtct 1800  
cagggacaga agcagatatt tattcagact tccgatgggc ttatcttgtc ccctccaggt 1860  
acaatagtgt ctcaggagga ggacattgtc acagtgactg atgcagaggg gcgtgcctgc 1920  
ggatggggcc gctagaagga gttcctctag aagctgtgga gtcggtcgtc accgtggagc 1980  
cagagccctc acagtgaagt ggagtcagat cctagattcg tctgatttta tccagagaag 2040  
gtctatggca agcaatgtat atttttctaa tgtgaatatt gcacagatga accttttatt 2100  
tataaagaat aatgtctttc tgc 2123

&lt;210&gt; 1384

&lt;211&gt; 1918

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 1384

gcgggtgggg	cggccgggcc	tgcgctgggg	acggctctgg	ggactgcggc	cggcgccggg	60
acctggaggg	gacgctgggg	ccgaagcagc	atgtgacacc	gaccaggatt	cagccctgat	120
ggaggctgag	gaggcccagc	gtggagcctc	tcctcccatc	tctgccatag	aggaattcag	180
cattatccct	gaggctccca	tgaggagcag	ccaggtctct	gccttggggc	ttgaagctca	240
agaagatgag	gacccatcct	ataagtggag	agaggaacac	agactctcag	caactcagca	300
gagtgagtta	agggatgtgt	gtgactatgc	gattgagacg	atgccctctt	tteccaagga	360
aggttctgca	gatgtggagc	ccaatcagga	aagccttggt	gctgaggcct	gtgacactcc	420
ggaacactgg	gaggcagtac	cccagagcct	agcaggccga	caagcaagga	ctctagctcc	480
cccagagctc	tgggcctgcc	ccattcagag	tgagcatcta	gacatggccc	cattttccag	540
tgacctggga	agcgaagaag	aggaggtgga	attttggcca	ggacttactt	ctttgacatt	600
gggatctgga	caggcagaag	aagaagagga	aacctcttca	gataactctg	gtcagaccag	660
atattattct	ccctgcgaag	agcatcctgc	agagaccaac	cagaatgaag	gcgctgaaag	720
tgggactatc	aggcaggggg	aagagctgcc	atctgaggag	ctgcaggaaa	gtcaagggtct	780
cttgcacccc	caggaggtcc	aagttctgga	ggagcaggga	cagcaggaag	caggatttctg	840
gggggaagga	actctgaggg	aggatgtttg	tgccgatggg	ctattagggg	aggaacagat	900
gatagagcag	gttaatgatg	aaaagggaga	acagaagcaa	aaacaggaac	aggtacaaga	960
tgtgatgctt	gggagacaag	gagaaagaat	ggggctcact	ggggagccag	agggtctgaa	1020
tgacggtgag	tgggagcagg	aggatatgga	gaggaaggct	cagggtcagg	gaggtccaga	1080
acagggagaa	gagaggaaga	gggagctgca	ggtgccagaa	gagaacaggg	cggactctca	1140
ggacgaaaag	agtcaaacct	ttttgggaaa	atcagaggaa	gtaactggaa	agcaagaaga	1200
tcatggtata	aaggagaaag	gggtgccagt	cagcgggcag	gaggcgaaaag	agccagagag	1260

ttgggatggg ggcaggctgg gggcagtggg aagagcgagg agcagggaag aggagaatga 1320  
gcatcatggg ccttcaatgc ccgctctgat agccccctgag gactctcctc actgtgacct 1380  
gtttccaggt gcctcatatc tcgtgactca gattccccggg actcagacag agtccagggc 1440  
tgaggaactg tccccgcag ctctgtctcc cttgctagag cccatcagat gctctcacca 1500  
gcccatttct ctactgggct cctttttgac tgaggagtca cctgacaagg aaaaacttct 1560  
atcagtactt tgatatgtca cagtttcatg tttatccagt tcaatgtatt tttaaatttt 1620  
tccttgagac ttctttgact gatagattat tgtgaagtgt gtttttaaatt ttccaaatgt 1680  
ttagggattt tcatatcttt cttatgctga tttccaattg gattccctac aatgatttct 1740  
ggttttcatc tgctctggat gattactatc tcttttaaatt ttgttgtggc gagtttttagg 1800  
gcctaggaca gctctatctt gccatgtgtt tcatcagcac tcaaaaaaaaa tatgtgtatt 1860  
ctgctgttac tgtgtggaat attctgtaaa tgccaaatag attcttttgg ttaatggc 1918

<210> 1385

<211> 2117

<212> DNA

<213> Homo sapiens

<400> 1385

taggccctgg catttgcttt agctgctttt gtagaattga catgaggag actgtccctc 60  
tagaggaaaa cgctcagcta ttaccaatga ggaaaaggca atactgatgt gctggggttt 120  
tttgtttttt ttaatctcaa acttaggaaa agatgcaagt gcgttacaaa gaattttgtt 180  
tcctgaaccg tgtgagtcag ttgctgagag tctgctaccc gccacgata cagacactga 240  
acaggaagtc agcatggacg cagtactcct agcgggtcct caggcccagt catgtcctct 300  
aggaaaagga tccagttcag gagcaggagc tgcacttggg tgtcatctct ttgggtctct 360  
tctgattgga agctttttga cttccaagac gtggatactt ttgaagtgtt ctgaatttgt 420  
agaatgttcc tcagtttgtg tttgcctggg gtttcctcag cactggattc aggctaagca 480  
tctttggcag gagtgtgaca gcactgacac tcttgggtgg cacgtacttt caaagtgcc 540  
attactgatg atgtgcattt gaccacttgg tgaagacggg gtctgctggg catctccagt 600

gtgactttcc ctttctaact gaacagtgtt ttgtggcaga ctctcaaaat ctgtaaatac 660  
cccttcctca gcaaactttc agatcaattc atatgtattg ggggtgtgtgt gtgtgtgtgt 720  
gtgtgtgtgt gtgtgtgtgt agttccctat ttaaagggtc atactgtatt ccattaatag 780  
taactgtttg ttaggatgct cagattgtcc cgagtttggc cagtggaagc cccttcacat 840  
aggcttcggt gtcctttgga catgtcctta tcattccttg agcactccct tgctttctgg 900  
caaaacagac tttgggttca tcctgtcctt tccctgccta gccccggaat cagccctcac 960  
tccttttagt ggagaataat aaatactttt agcagcaaag gtctgggtct aggggtgctc 1020  
actgcagttg ggggtgtcact gttcccaggt gctcccagtg gacagaggtc gttcttgttt 1080  
tcttctttct gtgtctaact cctcagagaa acctggctcc cactgtcctg tttacctgcc 1140  
tgactgcctc catacataag cagcctccct cccctgccac caccctgcc ctgcagatgc 1200  
cttcctcacc cacttgggtc ctcatactgc acatcaggct gccacactg actcccccta 1260  
tcggaccacc ccagccctgc acatacagcc cacacggatg ccagccctcac cctgccccatg 1320  
ctgagtcccc gtgctgtggt gttcctccac atggacagct ccacacccta cttgggctga 1380  
caccctccct cccacaagc acccctcct taccctgcac tgggccacc ccacgtgtgg 1440  
atgtcctctg tggtaggcag agtggcgccc ctaaagatgg ccacacccta agccctggaa 1500  
cgtgtgaatg ttacatggca aaaggaactt tgcagataaa aattaagatt gtaaacttta 1560  
aaacagggaa attatcctgg atcatctgca tgggtccaat gcaatcaca ggatccataa 1620  
gaatagaaaa ggcaggcaga aagaagggtc ggtgggagag agggactggg cctgctgctg 1680  
ctggtggaaa atgaagtgcc acgagtcagg agggagggtg gccttcacag actggcaaag 1740  
gcctcagctg gcagccagca aggaaatgct gacctcagct ggcccacaac tccaagaaat 1800  
taaattctgc caacaataat cctcagcaag gaaacggatt ctcccttaga gacgccagag 1860  
agaacggtcc tgccaacagc aagactttag cctggagaca ctctgtttgg acttctgacc 1920  
tacagaactg agataaaatt gtggttttta tttatttatt tttttttt tgagacggag 1980  
tcttgctctg tcgccaggc tggggtgcag tgagccgaga tcgcgccact gcactctagc 2040  
ctgagcaacg agcgaaactc tacctcaaaa aaaaaaaaaa aaaaaatctg ttctgaaata 2100  
aagcatgaga cacctag 2117

&lt;210&gt; 1386

&lt;211&gt; 3655

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 1386

```
tcttggtgaa gtgagattca gactgagtgg ggtcacagca cagggcactg tcttgccctgg 60
ctttatctga gccagtcaca cctctcctgg ccactatctg tggctctagcc ccctttgtgc 120
agaaagagaa agaagagcct tgaggaccag cctagtcagg ctgaagaaat gtcaacaatt 180
gggagttttg aaggattcca ggctgtgtct ctgaagcaag agggagatga ccaaccctct 240
gagactgacc acctatcgat ggaggaagag gacccgatgc caagacagat ttcaaggcag 300
tcaagtgtga ccgaatcaac tctttacccc aatccttatt atcagcctta tatctcacgg 360
aagtactttg ctacacggcc gggggccatt gagactgcca tggaagactt gaaaggtcac 420
gtagctgaga cttctggaga gaccattcaa ggcttctggc tcttgacaaa gatagaccac 480
tggaacaatg agaaggagag aattctactg gtcacagaca agactctctt gatctgcaaa 540
tacgacttca tcatgctgag ttgtgtgcag ctgcagcggg ttcctctgag cgctgtctat 600
cgcatctgcc tgggcaagt t cacttccct gggatgtccc tggacaagag acaaggagaa 660
ggccttagga tctactgggg gagtccggag gagcagtctc ttctgtcccg ctggaaccca 720
tggtcactg aagttcctta tgctactttc actgagcatc ctatgaaata caccagtgag 780
aaattccttg aaatttgcaa gttgtctggg ttcatgtcta agcttggtcc agctatccag 840
aatgcccaca agaattcaac tggatctgga agaggaaaga aactgatggt gttaactgaa 900
cccattttga ttgagaccta cacagggtg atgtcattca ttggaaaccg caacaaactt 960
ggctattccc ttgcccgtgg gagtattggg ttttgagagt ctttttggtta ccataagcat 1020
atcatccaca gatatgtcac tttgaaaatt ccagtttgac ccacgctatt tttggactga 1080
aacaattaat tatttttaaa tgacgcttta tgatttagaa atttagtatt tccgaaaatt 1140
taaaagcttg attggactga tagatacaca ctttagacct catacaagaa taatcaaatt 1200
ttcttaaaac tagaaaataa atgctgctga gcctatcaaa tactgttatt aaatgagtgc 1260
ctgatcatca actcaggaaa gaagactcta agtcctgttg cttcagctct ctaaagttag 1320
gctttttttt ttttttttt taggtcttgg tcttcagccc tcttatcctg atttattctc 1380
tcattggggg ctcactgtct ctagtatatt agctaccact tgataaggat gacttccaaa 1440
```

tttatattcc cattcccaat atttattcca agactcagtt ttgcatttct gactgctaata 1500  
catctatata tcagtgtccc agtggcctct taattgagca ttatcaaaat cctgtgggtat 1560  
ttatatggtc ccagttatcc atccctgaag tctgtcaatt ttgatttctc taaattcctt 1620  
gccatgacat cctatatatg atcacatctc tatacggctt agcattgtat tccgatgccc 1680  
agatgtcaaa cttgaagctc attctcttat caaaattggt catgtattcc tcctttccat 1740  
tcttatagct gtattattag atcaggtttt taattctgct caaccaatta ttaccacagc 1800  
ctgttaaagt gaatccctac tccaaggctg actgtttcaa tctatcctac acttgggttc 1860  
tagctcattt acttatacca tcttttgttc aaatatatat tttttaataa cagacctttt 1920  
tcttctaaag aaatcttttg tagaagcagc atatacgaag cagataaaag taggttcaat 1980  
gcggttgag tgaagatgag aatgccacag gcatctttct ttctaggcct cagaggtgct 2040  
gcatatggaa tgtccatgga tcgcagaggg ttttgaagac catgttttca aaaacactgt 2100  
cttaacactc tattgtcatt gctcttttcc ctcttatttc ctctttgtct cttcccgact 2160  
tagatctaata tttcaacaac ccaggaaatt atctcatatg tttgcatctc tcaagtttct 2220  
tttctttttt ctttcagagt cttattttat ctaaatttat gtagaaaaaa aagctttgaa 2280  
tgttgactac atagacatta ctacaataag ctttttgcct ttcccgagac tcaaaattga 2340  
cacatctttg ttgatgttta agttgaaatt ccagccaact ttttttgact tttatgtgaa 2400  
gtttaaagtc ttttctttga aaagcttgct tcctcaattt caaagatttg tcctctgata 2460  
tatttataaa catcaattta atgcagacat tcaaacccta aaccttgaat aactcttatt 2520  
ttattttgtc tttgtttact tccattaatt tttttttctt tccctctctt ccgcctttac 2580  
agcaccact ttttcttccc cccatgatgg caaatattgt tatagtcctc aaggcaggga 2640  
acttctattc agactgtaaa aggaaatgtt gaaatccata gctgtcctgt caacagtagt 2700  
ggaatgaaaa gtcgttggat tgttttggca ctggttctga agcaggcata attggcaaat 2760  
tattataata ctgctgcccg aaaatcccca tttgcctcaa gatagtggca tttattggca 2820  
gaagcctctg aaatgtccag cacattcttt tgagttacca ttttaaggatc agcctgacaa 2880  
tcgacttctc tctgcacatt tgcccccttt gtaacctaag ccagactgtt cccaaatgac 2940  
cttctaaagg acacagtgca ccatcatcaa tggaacagc tcagaaagga tgacaggagg 3000  
gagatgtttc ttagttctga gagccagtct gtaacaatgg gataagcatt taatggaatc 3060  
aaagctgttt tgcataaaga gtgaactcag agacgacaag agggctctta tgaattccct 3120  
tcacattttg taaaaactgt catatatagg ctatcccctt aattgataaa tgggatctag 3180

aaagcgtat tatgaccaga gggtgagaag atttaggaat ttggatagca gttcaagata 3240  
agaaagaact tcttatagtt ataaattttc aatgatggaa tgggttgctt ctttaaacag 3300  
tgagcccacc atcacttggt atgttcaagg aaagactaga taaagtcgat attgtgagag 3360  
gaattgctgt atgataccgt ttggagaaat gattgacata atcttttaag gccggtgacc 3420  
ctatcatttt ccaaataatt gttgctagta cttagttaat tagaccatt tttttcttag 3480  
gaaagagttg gatcaatcat gggagaccct gaaaaatttc cttaccttc ctaaggttta 3540  
atttcctctt ctgcgaaatg gagacaatta tattactttt gcttatttca taaagatctt 3600  
gtgaggattc aatgaaatga ggttaaattc ttttattaaa cagaaagttt tgagt 3655

<210> 1387

<211> 1922

<212> DNA

<213> Homo sapiens

<400> 1387

aatctcaagc agaagagcaa gagaagcaaa actcggttcc ctgtgaactc aagaggcttt 60  
gcccagaagg gatgcaacca gttatttcag cattaaatat ccagacacag acagtacaga 120  
cccatcctgc tccaagaaac acatcagagc actgcactct gcctgcctgt gatgccagg 180  
aagagcacag agatactgtt gacggctcca tcgcaaggac tgagtcagct tcaggggaaa 240  
tttggagaca gacacacatg gacggagaac atcatgtgaa cacaaggca gagatcagtg 300  
tgatgtcggc aaaccaagga gcaccaagga ttaccagcaa gccaccagaa gcgaggagag 360  
aggcccggga cagatctctc cctagcgcct tcagcctgcg tggcctcact gacactttga 420  
tcttgggctt ctgtcctcca gaactgtgag acaatcaatt tctgctgtgt aagccacctg 480  
gtctgcggca ctttgttata gcagccctag aaaactaaga tggaactcgc cggctggtca 540  
ctgtcttccc tcttatcaca ctaccttccc ttactgcagc tacttattta actgtttccc 600  
accaaagac cctaacatcc aggagtgtgg ggcccacatc tgcctaattc gccactacgg 660  
cccaagccca cctctggcac actggaggtg ttcaagatgt gagctgacat atgaaagagc 720  
tgtcctgact agttctagaa tctcaggcat gtgactcccc ctcccagaat gtcaatttcc 780

ccatctctct gcagagggaa aagaaaataa ttggagtaga tgacctctgt gagtccttcg 840  
ggctcaaaag atggccggga ctcaccactg aaggtgtctg catccatcat ggtcagatca 900  
ggccatgaga aaccccacta gaggtgctaa acagagggaa tgggtcacag aggtgtggga 960  
agcctgagaa accactgcgg ccttcctgct ggacttcaga gaagggtgg cctcatttta 1020  
tgggctttct gaaaccata ttcagagaaa cacaccaat tcagcatgga ctggcaatgc 1080  
ctatcccaa ggaaactcca aaaggggtga gtctcctggg cagtgggtcac tgagttacta 1140  
caaggccttt ggggttgggg tggggatggt ggggtcaacag gctcccctag aagccctgtg 1200  
ccctgacaaa gtaaacaatg gcaaaacatg tgcttcccag cactcacctc cccacctcct 1260  
tctaacatca gaactgggtt tctgatgatg ggagaaaatg taaatgaaat caacggaagg 1320  
atgatcctgt gagtaatctg acaagggaga accagcttcc tctcccatga accccagctg 1380  
ccttggtttt caccagacc cctggccac cgggtgtcct cccagacgg tggactcac 1440  
ccacactgct gagggagctg ctgctttctg agtctgaggg catggtggac aggacgtgt 1500  
aggtagaacc tggggaaaga ggggagacca tgttactaac cccaaggggt cactcgtctt 1560  
caccccaagc cagctgatca tcagtcaatg ccaggccatg agagctacat gcaccaggca 1620  
ctagaaatcc acatccacag gccaagcaga ggaggcgcgc tcagcagatc tggacttcgg 1680  
cgtttctgcc aggcctcca cctcatttta tcggcccctc ctgctctggg caggcgggca 1740  
gaggggaact tggagtcagt cagctggctt cttgttggga catctgggga aaggcttagc 1800  
aagggagtga catgccccag gtaaacaatg ggtgtggggg tttcctccac atctctagca 1860  
atatgattct ggcttccatg cagagggtaa cagagcagaa attaaagaac aactgaacta 1920  
tc 1922

<210> 1388

<211> 1860

<212> DNA

<213> Homo sapiens

<400> 1388

actccttcac ctctacatt ccttctacat tatcccccaa tgttctgttc ttcctccacc 60

caaagataaa accaaaatag atattgtaga agtaaagac ctaaaacaaa ctttagcaat 120  
tgaaacagga tatcaagatg caaatgcctg gatggaatgg attaaatatt ccgtccacac 180  
tttaaacaaa agcaattgtt atgcttgtgc gcacagcagg ccagaggccc agattgtccc 240  
ctttccactc agatggtcct cccgtcgacc aagcatgggc tgtatggtag ctctcttcca 300  
ggattctaca gcttggggca atatatcatg ccaagctctc tctctgctct atcctgaagt 360  
tcaacaccct gcgggtcagc ccccgagggc catccagctt ccgtctcca atgtcagttt 420  
catctcatgt ctctcatgac aagggaacac ttggcattcc gtggaagctt aatgggatgt 480  
agtgaagctta agcccttcca agagcttacc catcagctctg ctgttagtca ttctcgagcg 540  
gatgtagcgg atgtatgggt gtattgttgt ggacccttac tggacactct gccaaagtaac 600  
tggagtggta cttgcactct tgtccaattc gctatccctt ttgcccttgc atttcttcaa 660  
ccagaaaaag aaaagccaca acaccgtaaa ataagagaag ccccttatgg gtcttttgac 720  
tctcaagttt atttagacgc aactggagtc ccacagggag taccacacaa attcaaagct 780  
caagaccaga tagctgcagg atttgaatca atatttttgt gggtaactat cagtaaaaac 840  
atagattgga taaattacat ctattataac cagcagcgggt ttattaacta cactagagat 900  
gctgtcaaag gaatagctga acagttaggg cctactagcc agatggcttg ggaaaacaga 960  
atggccctag acatgatatt agccaaaaaa ggtggagttt gtgttatgat caaaactcaa 1020  
tgttgtacct tcatcccaa caatactgcc cctagtggga gcataacaag ggccttaca 1080  
ggccttactg ctttatccaa tgaattagct aaaaattctg gagtcaatga ccctttttca 1140  
ggatggctag aaaggtggtt tggtaaatgg aaaggaatca tagcctcaat tcttacttct 1200  
cttgcagccg taataggtgt agtcattctt tttgggtgtt gtgtcacacc atgtatccgt 1260  
gggctagtac agaggcttat agaaacagta ctactaaaa cctcccttag ctctcttcca 1320  
ccttattcag ataagctttt ccttttagag gatcaagtcg aacagcaaag ccaagacttg 1380  
ttaaaaaggt ttgaagagga aggaccataa caattgaaag ggggaaatta taagatacag 1440  
taaattcctc ttcaaagatt tagcctgttg acttccttat tctttgttct caaactcgac 1500  
ttccttgttg tccatgcctc cttgtcccta gttactgtga acaaccttcc caccagttct 1560  
aatcaataac tcacatctgc tcccttggtt acccactctg caccattct tccactgaa 1620  
actgcacttc ccaccactgt aactcacatc ccccttcctt tccttatttg gaaaagtatt 1680  
caciaatagc caatcgggtc aacttagaat gagcgggtcca accccagccc ctgggggaggt 1740  
gacacagagg tagggactgt gttagggata aaaacctttt ccttcctttg ttcagtgtgc 1800

tcctgtgatc atgattgatg caggcagcac ccttctgcag aagtaaattg ccttgctgag 1860

<210> 1389

<211> 2744

<212> DNA

<213> Homo sapiens

<400> 1389

gtcgcctagga aacgagcgag cccgacgcc a ggggcggagc tctggcctcc tcgccgagtt 60  
gggggaggca ggtgcgacag gagaatggac agtaagaagg ggagacccaa agctgcagct 120  
gggaagtggc agacgctcca ccctgggccc aagacaagag ctgctgctgg gaagcccggg 180  
gagaaccgcc cgccgcagag gaaagcgggc tggcaggcga gggagcccg c gtcggctgag 240  
agcccacagg cccccacaga tggagtttcg ctctgttgcc aggctggagt g cactggggc 300  
ttggctcact gctacctccg cctcccaggt tcgggcaatt ctctgcctc agcctcctga 360  
gtagctggga ctacaggcac ccaccaccac acccagctag tttttgtgtt tttagtggag 420  
acagggtttc accatgttgg ccaggatggg ctgatctct tgaccttgat atccgcccgt 480  
ctcagcctcc caaagtgtg ggtattacagg cgtgagccac caggcctggc tccttttcca 540  
ctttcatgga ccctcgtgat tgcattggat ctccccgggt aatctgggat gttcttctg 600  
gcctaaggtc agctgattag caaccttagt tcattctgcag tctccattct ctttttgctg 660  
aatcacgtca agtattcaca agttccaggg ggcaggaggt ggacatctt gggggacatt 720  
attccgcca ccagaaaacc caggagcagc cacagcccca agacaggca gggaaggagt 780  
gctgctgtct gccggtgaag atgaactgct tctgaccctc ccgagcgagg atattgagaa 840  
gaaagaattt gccaagatgc tagtcacaca ccaagtacag aggctatgtt ggtcggctgc 900  
ggcaaaaaga cactcgcgg cgtggcagct ctactggcc ctgctgcctc ttcaagtiga 960  
ctgcagtcca tcaccacgg tcattattaa tttgtttttg caaaggccag gcaggtgaat 1020  
ctaattgaga tggaaccac cacacctgct tccctgggtct ctgatgttgg tgttaacctc 1080  
tgcaattcct caagcaaagc actccttcta tcaggctcac tgtcttgctg gagggaggaa 1140  
gttccacagg ctctcattg gttctttctg ccgtaacaac cttactcct ccggccaagg 1200

agccaatgtg agcattcagc tggcagctaa gaatgtgtat cccaataaac agggcagacc 1260  
 tacagacca ctggaccac tagagatgga cttgggccac agtgccttcc atgacttcag 1320  
 taaacagagg ggtgtggtaa tcttgtcaaa gtcctggcgt caatgtcagt gtccggctac 1380  
 acaccatgtt cccgtcctcg aaaagcctct ctgtaccctt ctatgttggg gacacaaccc 1440  
 tggcaaatgg ccacagactc ctttggggac agagtaggag cgtaactggg gggagtgggt 1500  
 ggcatgcctt gtattgggag agccgcacgc cctagggcct ccagcctcct cttcagtttg 1560  
 gcagctgtga gtctgaattt cactcaaate tggaaactgg gtgagagact gtggcagctg 1620  
 ctgtccggct ggcagagcct gacgtgtctc tgatcatact cactgggtca gcaacacctt 1680  
 actgaccttg tccagaatcc cacatcccag ttgatatacag ggcaatcagt ttcctggctg 1740  
 ttttcccaa tatcaaccg ggcttacaga agacagtcac cacagagctc ctgccaggag 1800  
 ttcactcatt cgtgcatttc ttcctttttt ttttcttttt gagatggagt ctcgctctgt 1860  
 cgcccaggct ggagtgcagt ggagcgatct cggctcattg caacctccgc ctcttggtt 1920  
 caggcgattc tcttgccctc gcctcccagg tagctgggat agcaggtgtg tgccaccacg 1980  
 cccagctaata ttttgtattt ttagtggaga tgggggtttca tcatgttgcc caggctgggtc 2040  
 tcaaattcct gacctcaggt gatctgccct cagcctccca aagtgcctggg attacaggct 2100  
 tcagccacca caccagcct cattcataca tctcttattg ttgttgtttg agacagggtc 2160  
 tttctctgtc acccaggatg gagtgcagtg ttgtgatcat gcctcagtgc agcgatcatg 2220  
 gctcagtga gcctcaaact cttgggctca agcgggtgctc caacctcagc ctcttgagta 2280  
 gctaggacta taggcacaca gcaccatgcc ccggctattt tttattttg tagagatggg 2340  
 gtctcactat gttgcccagg ctagtcttga actcctggcc tcaagcaatc ctcccacctc 2400  
 ggctcccaa agtgctggga ttaaaggcgt gagccaccgt acctggcctt tgggtggaatc 2460  
 tttagggttt tctattcata catataaaat catatcattg gcaaacagag ataattttac 2520  
 ttcctccttt ccaatttgga tgccttagat ttcctttcct tgcctaactg ctctgtctag 2580  
 aactcccagc actatgctga atagagtggc aagagcaggc atttgccttg ttcctaacct 2640  
 tagagaaaaa tccttcagcc ttttaccatt gaggatgatg tttgctgtta gtttttcata 2700  
 aatgatctat atcaggctga ataaatttct atttctaaaa aaac 2744

&lt;210&gt; 1390

&lt;211&gt; 2040

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 1390

acacctgagc	tcgccctgcg	gtcccgggca	gtgactccgc	cgagcctcgg	tgggggaggg	60
gacaggggag	agaataggga	agaggggcgc	gatctgtgtc	tgggaccctg	tgccaagaaa	120
cccgaccctc	gggctctggc	catcagcagc	cgcggtgcag	ctgcctcccc	ctgcctccag	180
gtcgcccagc	agagctttct	agagctgggt	gtcagaaga	ccccaggcgg	aggcaagaac	240
cttggggccgc	ggctctgtgg	gaaaagccct	cggggaagcc	agacggcgcg	ctccagctcc	300
ccatcgcggg	cgtgggcccc	ggggtggagg	cagttgggtc	gcggccctgc	cacccccatg	360
ctgcacggcc	tcggcccagt	gccaccacct	ctgtgggccg	ccgtttcagc	ctccagatgg	420
ggtggcggcg	ggccccagcc	cttgccccaa	gtctctaagg	aagggtctgg	cctggccccg	480
ccagatccga	gctgctgcgt	acgcgcgggg	ctgggagctg	caaaaacgcc	cggggcccag	540
ggtgagcggc	tgggccctcg	ggggacccgg	cgcgcgcggg	ggctccagct	ccgccctgtt	600
ggggggccaga	gcaggaggga	ggccgcccc	gcttgctctg	ggccgcagcc	ctgccgaccg	660
cacgggacag	gcgccgcgtc	ctctctgggc	ctccaagacg	cagactagaa	gcccatagct	720
gctgggaaga	tgggcacccc	aggtctccgc	gcacggcctt	cccagggcc	cggtgaaaca	780
tggatgcgac	actcaggcac	cttcccggcc	cccggcgaaa	acgcaaagcc	tgagcccatg	840
atgggctcgg	aagctctgcg	ggattgagtc	atcagaggaa	tgctgatcta	gaagtacaat	900
ggctggaaga	cacccgcaga	aaccgcgggc	actggagagc	aagtgcagct	ttaatctcca	960
ggcgtgattt	agatggaaa	cagcctgaag	accagttaag	agaaccgcga	gcagagcgcg	1020
ctggactagc	accaacagac	gtgagttcga	gaccgtcctg	ccccttaatc	ctgtgtgacc	1080
ttggtccatt	ttttaagtct	gtgagcctcg	cagtgttctc	attcctgaaa	agagcctgcc	1140
ccatctccgg	actgcagtga	gaacaaaagg	agactatgaa	catgactttt	tgccactttt	1200
gaagccccac	actgaggaaa	gattttccta	gcacttggga	gattttcttt	agcaccagct	1260
gccaaaatg	ctgggaagga	gatagcccca	tcccagaagg	aagacacctt	aaatcagaac	1320
tttatttttc	ctcctatgaa	aatacaatct	aatactggag	aagtgtaaaa	attaaggagt	1380
cattagaagc	catttgttgt	tgttgttgtt	gttattgttt	tgagacagga	tcttactctg	1440

tcacccaggc tggagtgagg tggcacgatac attgctcact gtagcctcca actcctggac 1500  
 tcaaacaatc ctcccttctc ggcctcccaa gtacctggga cgagagggtgc actgggcgtg 1560  
 gtagcacaca tctgtagtcc caggtacttt agaagccgag aagggagggtc tctactattt 1620  
 gcccaggctg gtctccaact cctgggatca agccatcctc ttgcctcggc ttcccaaagt 1680  
 gttgggatta taggtgtgag ccaccactcc cagcctgttg ttttaacttt ctatcaaaga 1740  
 aatggatgga ggggtggacag ggatgctggg tgcttttagat tagacttgaa agagttaaca 1800  
 gcataggtta cagaatcaca catacccgaa ttggaatctc gtcttgacc tttactacca 1860  
 ctgtttcggt atgttagtga cttaacctct ctgtgcttca gtttcttcat ctgtaaaatg 1920  
 aagaaaatgg caccaacctg tggggttggtt gagaagatga aatgcaatag tgaatgtaaa 1980  
 agtgcctgac aggaccagc acgtggtaat acataataaa tgctagctag ttttggtttc 2040

<210> 1391

<211> 2506

<212> DNA

<213> Homo sapiens

<400> 1391

aaattttagg ccgggcacgg tggctcacat ctgtaatccc cacactttgg gaagccaagg 60  
 tgggcggatc acgaggtcag gagtttgaga ccagcctggc caacatgggg aaaccacgtc 120  
 tctactaaaa atacaaaaat tagccgagtg tggaggcatg tgcctgtagt cccagctact 180  
 cgggaggctg aggcaggaga atcgcttcaa cccaggaggc ggagattgca gtgagctgag 240  
 atcgcgccat tgcactccag cctgggcgac agagcaagac cccgtcttgg gaaaaaaaaa 300  
 aaagaaagaa agaaagaaaa tttaaaatcc ttgacgtaat ggaaagccat taaaatagat 360  
 cactggaaat gggtaaaact tccctggaac ccgtctgggc cccagcagag gtctggcctc 420  
 tatgtcagag gtctgggccc ggcacaggaa gaaatcgggt ggccaccaca gccccgtggg 480  
 tacgccaggc tggggccctg tggggccggc tgcactgcc atttctgtggc ctcgggagcc 540  
 aggtgccctg tcgggggcag gaggtctgtg tgcctgcac agctgctggg tgtgatggct 600  
 gctgtgtgtg ggggcagggc cttggcctct tccttggggc ctgggggggtc aggggctgca 660

tccaccgagg ccaccgctcc ccgcagacaa cctcctgcac cagcagatgc tgcagtcgga 720  
gatccaggcc atgaagaagc tgcggcacia acacatcctg gcgctgtacg ccgtgggtgtc 780  
cgtgggggac cccgtgtaca tcatcacgga gctcatggcc aagggcagcc tgctggagct 840  
gctccgcgac tctgatgaga aagtccctgcc cgtttcggag ctgctggaca tcgcctggca 900  
ggtaggctgag ggcatgtgtt acctggagtc gcagaattac atccaccggg acctggccgc 960  
caggaacatc ctctctgggg aaaacaccct ctgcaaagtt ggggacttcg ggtagccag 1020  
gcttatcaag gaggacgtct acctctccca tgaccacaat atcccctaca agtggacggc 1080  
ccctgaagcg ctctcccgag gccattactc caccaaattc gacgtctggg cttttgggat 1140  
tctcctgcat gagatgttca gcaggggtca ggtgccctac ccaggtactg tccccactgt 1200  
ccctgactgg gcatgagagg cagagtgggg gaggtcctgg gtagccggca gggacgctgg 1260  
gggggtgcctc cccacgggc ttcagggccc tccgcgggcc atcgcctgaa ctccacacct 1320  
gcaccattct ctgagcacc aggctgggtgc ctggagctgc ctgttgagc cctgtccaga 1380  
gggaggtgtt agcagtggac agtgtgtctgg gtggcgccaa ggcatggcag ctgaggctgc 1440  
ggggaaggcc ccaggaagg gcaagtggatg gctgggtgtgg cttcttgggg gagggtaggc 1500  
aggtggggccc cagctcttct caccctgtc ggccgcaggc atgtccaacc atgaggcctt 1560  
cctgagggtg gacgccggct accgcatgcc ctgccctctg gagtgccgc ccagcgtgca 1620  
caagctgatg ctgacatgct ggtgcaggga ccccgagcag agaccctgct tcaaggccct 1680  
gcgggagagg ctctccagct tcaccagcta cgagaaccg acctgagctg ctgtggagcg 1740  
ggcatggccg ggccctgctg aggaggggcc tgggcagagg gcctggacct gggatcaagg 1800  
cccacgcgt tccctgggggt ttactgaggt gatgggtgca ggaaagggtt acaaattgtg 1860  
agtgctctgc tccaatacac gcgtgtgtc ctctccttac tccatcgtgt gtgccttggg 1920  
tctcagctgc tgacacgcag cctgctctgg agcctgcaga tgagatccgg gagactgaca 1980  
cgaagccagc agaggtcaga ggggactctg accacagccc gctctctggc tgtctgtctg 2040  
cagtgcggc ctgagggtgg gaggcaaaca cgccttgttc ctgctcttcc cagttcagct 2100  
tggtgggaga aagtcattcg cgtggctcgg gacgctcatg taaatttggg tttgggtgtc 2160  
aagggttctt tctcccagg ggcaggtgtt tctttcctgt ttgtcttggt tcttgagagc 2220  
ttggccttat gaccagttag aactctctcc ctggtctctg ccagcccaag catcactgcc 2280  
cgaggcgcca gctcagttc accgtccacg tccacaagg gcttttcca cttcacctt 2340  
tgtcgtggg tcagtgtgg aaagcgcccc tctcctgc gctgacaagg gcccttctct 2400

actgtctgtg ggggtggtcc gggctggggg ggctgcctcc tttgcacctg attttgaagg 2460  
tgtctctttc atccatggtt aagtcataaa aagcttattg gttttg 2506

<210> 1392

<211> 2358

<212> DNA

<213> Homo sapiens

<400> 1392

atctcccaga tgaaattcct ttgcctctgg ttattggaac gaaagttaca gcacgattac 60  
gtggtgttca tgatggtttg ttcactggac aaatagatgc tgtggatact cttaatgcta 120  
cttatagagt aacttttgat aggacagggc ttggaacccg taccatccct gactatgaag 180  
ttctcagtaa tgaacctcat gagacaatgc caattgctgc ctttggacaa aaacagcggc 240  
cttctcgatt ttttatgacc ccaccacggg tacattatac tcctcctctc cagtcaccaa 300  
ttatagataa tgatccttta ttaggacagt cgccgtggag aagtaaaatt tctggctctg 360  
acactgaaac attaggtggg tttccagtag aatttcttat ccaagtgacc agattatcaa 420  
aaattctcat gattaataag gaacatatca agaaattaag ggaaatgaac acagaagcag 480  
aaaaattgaa atcatattcc atgcccata gcatgaatt tcagcggaga tatgcaacaa 540  
ttgttctgga gcttgaacag ctgaacaagg acctaaacaa agttttgcat aaagttcaac 600  
agtattgcta tgagcttgct ccagaccagg ggctccagcc tgcagatcag ccaacagata 660  
tgagacgcag gtgtgaggaa gaagcacagg aaattgttcg gcatgcaaatt tcctcaacag 720  
gacagccctg cgttgaaaat gaaaatctga cagacttaat ttccaggctt acagctattt 780  
tgttacaat taagtgtcta gcagaaggag gagacctgaa ttcctttgaa ttcaaatac 840  
ttacagactc attaaatgat atcaagagta caatagacgc ttctaataatc agttgctttc 900  
agaataatgt agaaatccat gttgcacata ttcagagtgg cctgagccag atgggaaact 960  
tacatgcttt tgcagcaaatt aacaccaaca gagactgagt aaagatttca ttattccaac 1020  
tgcacgggac attgtttttg agaagttctt ttcctttata taggcttcca acaccaata 1080  
acctaactgc tggaaaacaa gggaaattta aatctccaaa taaggcattt taatagactg 1140

tactgcttct taaaccagca ttgctgacca gcattatatt tatttttctt ttattattca 1200  
gatgcagtag cattgcttat gttacatatg tttatattca caaatatatt taaactgaaa 1260  
tatctgaaca taatataatt tcgtggaaga atacattgac catttttttt aatgtgcatg 1320  
aattcaccgc aacacatgca gacaactgct gcaatggaga gtatgaagaa acctggtctt 1380  
tttattcatg tcggtggcag tgtggaaatt ccatccagaa aattacaact ccacttgatt 1440  
tagttgatca ccatctcagt cttcaaaaga taacatcatg aggtgtggga agtcctagtt 1500  
ttaaggaaac cactgaaata tagatgggaa atgtggactt tacaagtata tgttatatat 1560  
acttgcaatg tgacatgggt ctgtagatca ttttataata ataaatattt taatttatca 1620  
taacatataa aagaaacctt tgtttgttgt tgaaagaaaa tgaaggaaca gggggaaaaa 1680  
aggtgcaaaa tgctaaattt ctaaaaatgg atttggcatg tcttcccatc agttcaggtc 1740  
aaaagtgcatt tgttgtgaga tttattaaaa aaaaaatgat aacacactat tttcatattt 1800  
ttttgtttat ttgcacaact tttaaaccag attactgggt aaaatccaac agtacacaat 1860  
ttataaagta aaaagatttt ataaggaaaa caaatataat aaccagtgcgt gtgaaatgca 1920  
gaagaaaggc ttgttttggt tgtttttctt ttttaggaaa accctgccta aaatgttaat 1980  
cttgtaaaaa gtatgtattt ggaattttct tcgttttaat agaattattat aaagtcaaaa 2040  
tataaatttt tttcaaattt ggagttaag atatagctgt agagggtggt ttaattcctt 2100  
tagatgtctc ataaaatgag actttttata tgtaaatgta taataaaact gaaacaagat 2160  
tattttccat ttgaaatttt tgtatagttt aaaaaggctt ccgtattctt tgttggtatt 2220  
gtgccactgc agaacttttag tgcagagttt atatttagct aaactgttat gttaattaag 2280  
aaatgcataa atcttctatt cttaatatatt gtaattctaa ataaattgat ctatgaaaaa 2340  
aaaaaaaaa aaaaaaac 2358

<210> 1393

<211> 1821

<212> DNA

<213> Homo sapiens

<400> 1393

gcatgaccgt gacggctggg ttgggaccgg aacgccgaag cgggggttggg ggtggcagaa 60  
aagcatctgc tttgtaagac ctacacgagg tgcaggagtg gttgggcctc ccctctccac 120  
ttaagcaagc gcccagactg atggcgatgg tgatggcagc agttactcg acaaccccag 180  
ttaagctgcg ctccgggaga tacatccaga aagtgccag aagaaacttc ctgctggaaa 240  
aaatgaaaaa gcagtattta taacattaga atctggataa tttgttaaca tggcagaaaa 300  
taatgaaaat attagtaaaa atgtagatgt aaggcccaaa actagtcgga gcagaagtgc 360  
cgacagaaaa gacggttatg tgtggagtgg aaaggagtta tcttgggtcaa aaaagagtga 420  
gagttattca gatgctgaga cagtgaatgg tatagagaaa accgaagtgt ctttaaggaa 480  
ccaagaaagg aagcacagct gttcatccat tgagttggac ttagatcatt cctgtgggca 540  
tcgattttta ggccgatctc ttaaacagaa actgcaagat gccgtggggc agtgttttcc 600  
aataaagaat tgtagtagtc ggcactcttc agggcttccg tctaaaagga aaattcatat 660  
cagtgaactc atgttagata agtgtccttt cccacctcga tcagatttag ctttaggtg 720  
gcattttatt aaacgacaca ctgctcctat aaattccaaa tcagatgaat gggtaagcac 780  
agacttgtct cagactgaat tgagggatgg tcagctaaaa cgaagaaata tggaagaaaa 840  
tataaactgt ttctcacata ccaatgttca gccctgtgtc ataaccaccg acaatgcttt 900  
gtgtagagaa ggtcctatga ctggctctgt gatgaacctg gtttcaaata acagtataga 960  
agatagtgat atggattccg atgatgaaat tctaacactt tgcacaagtt ccagaaaaag 1020  
aaacaaaccc aaatgggatt tggatgatga aatcctgcag ttggaaacac ctctaaata 1080  
ccacacgcag attgattatg tccactgtct tgtaccagac ctcttcaga tcaataacaa 1140  
cccatgttac tggggagtga tggataaata cgcagccgaa gcactactgg aaggaaaacc 1200  
agagggtacc tttttacttc gagactcagc acaggaagac tatttattct ctgttagttt 1260  
tagacgctat agtcgttctc ttcattgctag aattgaacag tggaatcaca actttagctt 1320  
tgatgcacat gaccctgtg tcttccattc tcctgacatt actgggctcc tagaacatta 1380  
taaggacca agcgctgtg tggtctttga accacttcta tccactcct taattcggac 1440  
tttccctttt tccctgcagc atatatgcag aacagttatt tgtaactgta caacttatga 1500  
tggcatcgat gcccttccaa ttccttcttc tatgaaatta tatctgaagg aatatcatta 1560  
taaatcaaaa gttagagtac tcaggattga tgcaccagaa cagcaatgct agtaacagga 1620  
tggaacatg ggaatgataa tatatatattt ttcttttaaat attttatattt tctttttatg 1680  
ccactttgga tttttctaca aaggcagtgg tgtccaaaat aaaatctctg ccctaaattt 1740

tactaataaaa tccatTTTTc tagtgataca caaattgttt aaggttatac actcgagctt 1800  
aaatagatat tttaaccag g 1821

<210> 1394

<211> 1771

<212> DNA

<213> Homo sapiens

<400> 1394

attattatgg aacatccac tatacttgc tgatgttcc gggtacgaat tctatttggc 60  
cggattttaa agttagccac cccagcttt gtcagcttgg tatttgtgtt aacgttttaa 120  
tccttatgaa atggctctt ttatctcagc taatattcct tgcattgat tctatttgtc 180  
tgttattaaa attagtcacc agcttttgtc tgctggatat ttacatgggt tgcctcctt 240  
ttagtttaaa caaatctaga tcttgtgtt ttaaagtaca ttcctgcaa aaagcatata 300  
ggcacttttt tattctgtct ctcaaccct gtatgagaaa tagtgtttag ttcatttaca 360  
tttaatgtaa ttgctatagc tagatttaaa cctatttgc catttcttt ctgttaatac 420  
catctgtttt ttttctctta cagtttttcc cccctctgggt tagttttgtc tctttcattt 480  
gttatgtcca tgttttactt tgtggccttg aacaaattta ttgtagctgc tttaaagtgc 540  
ttttttgctg attttcaata tcagggtcat ttgaggtct tttttgtaga ctcttttttt 600  
cacattttcc ttttctccc taatttttaa taatttctat ttgttgataa catgttgaag 660  
ctcctctgca tcctgttacc tttctctgca aagtcttgat tcttattcca gcagaccatt 720  
gacttgccag aactcaaact ttgtccccct gtttcagctt taagttgctt ttctccaggg 780  
ccccctagag tcttacctga gtgtgcataa ttcaggggct ttaggtatt tagttggggt 840  
tcatacaaac atttcatggc tcacttcttg gcaactttct tttatgtaga ctattgactg 900  
ccctcagatg aacagccaca taaaatcaaa tgttacctgg taagatttcc tcttaccctt 960  
actctcattt ctaccagctt ttggctcatgc tctagtgcct ttatgttgtg gagttttttt 1020  
ctttcccaga atgtataaat gttagagttc tccagtattg gggaaagtca tgtaaatgta 1080  
tgtaaagtat aaatacatcc acaagggtgc ttgataaaat gcttatctca gattaggtaa 1140

atttaacttt ttttcttggt tgaattagc tacattgaat aacctgttta taatcagaca 1200  
 aaaaagtatt ttaaaaatgt ggtaggaagc agtaagatct attctctttg atgagtctgt 1260  
 agctctagct tgcttttatt ttaagttact atgactccca gtagcggctg atggtcattt 1320  
 tataactcaa attcagtttt tcaaagtagt tttcaaattc ggctcacgat acagtatatt 1380  
 ttaaaagttt gcatttcaga acttttcaaa atgaaatata tcatttcttt ctgcatagct 1440  
 aaatgcaaaa tttcattcct ctgtttttat tagctaaatg cattgaacaa ctcacagata 1500  
 atcatttagt agctagtagc cggtaaatct taagtaaaag tccgctgtca gaaaatggag 1560  
 ttcttattgg atagcataaa tgtggcatgt tttgccagaa atgtccttga gtcttcataa 1620  
 gtttaaagaa agtttatttt aaagaaaaac atattctggg tgtggtggct cagcctgta 1680  
 attccagcac tttgggaggc cgaggcgggc agatcacgag gtccggagat tgagaccatc 1740  
 ctggctagca cggtgaggcc ccgtctctac t 1771

<210> 1395

<211> 1821

<212> DNA

<213> Homo sapiens

<400> 1395

cttgtttcac ttaactaatc ttcttagcca tttactctta ttgtgagcct ggcttttcca 60  
 cctgaccaag ttcttcttgt tccaggaatt caaagataaa gaaaccaggc tctattattt 120  
 ctttctgatt gattgatatt tggtttctaa aagaaatttt cttccttctc tacattcaca 180  
 aactcttcta ttcttttgcc acattttata cacttaagtt taaaccagtt tccatgtata 240  
 ttttgtctat attatgtttg ttattgagaa ataggcattt ttgggaagaa agaatttggc 300  
 attttggaag taatcagaaa attaaaaaat gcacacacca ctttccattt cttctcccca 360  
 cccaacccc taccctatc ctcaaagct tagctagtga aatattaaaa tgttgtaata 420  
 gaaattggag tcaaggtctc cttgctgaag agaccatcta ttttcagaga ctggaaggag 480  
 agagaacaaa ccaatcaaga gtcattgggt tgttgccctc attgttttat ttctgacctg 540  
 cgcaaatagc ttttgaagtg gagatatgct agttcttggc aactaatact tttctgggca 600

tgcattttat gaaataatag gtatgtatct gcctcattct tttaggctat gtgtttctct 660  
agtttaaaaa taatttgcca atgaaggctct atctgtatct atgcaatccc taaatttgta 720  
tttaccttat gtgcgtatgt tttaaatgtg tgtatggagg cttattttgg atgctgtaga 780  
tgggagagag tgccatcatc tagtacactg ttatatgccca caagaaataa ttgcacagcc 840  
atttcttaat ttttaaggttt ttcttttcaa caggttttgc actgattgca aaaataaagt 900  
cctccgagca tacaatatcc ttattgggtga acttgactgc agcaaagaaa agggctactg 960  
tgctgcactt tatgaaggct tgcggtgctg tccacatgaa cgacacatac atgtttgctg 1020  
tgaaacagac ttcattgcac atcttttggg tctgtctgag ccagagtctg caggagggcg 1080  
aagagaaagg catgcaaaga caatagatat agctcaagaa gaagttctga cctgcttggg 1140  
aattcatctt tatgaaagac tgcacgaat ctggcagaag ctacgggcag aagagcagac 1200  
atggcagatg cttttctatc ttgggtgttg tgctttacgc aagagttttg agatgaccgt 1260  
ggaaaaagta cagggtatta gcagattgga acaactttgt gaggaatttt cagaagagga 1320  
acgagtaaga gaactcaagc aagaaaagaa acgccaaaaa cggaagaata gacgaaaaaa 1380  
taagtgtgtg tgtgatattc ctactccctt acaaacagca gatgaaaagg aagtaagcca 1440  
agagaaggaa acagacttca tagaaaatag cagctgcaaa gcctgtggca gcaactgaaga 1500  
tggttaatact tgtgtagaag taattgttac caatgaaaat acatcatgta cctgtcctag 1560  
cagtggcaat cttttgggggt cccctaaaat aaagaaaggc ttatctccac actgtaatgg 1620  
tagtgattgt ggatattcat ctagcatgta agggagtgaac acaggttctc gggaggggtc 1680  
ggatgttgcc tgcactgaag gcatttgtaa tcatgatgaa cacggtgatg actcttgtgt 1740  
tcatcactgt gaagacaaag aggatgatgg tgatagtgtt gttgaatgtt gggcaaattc 1800  
tgaagagaac gacacaaaag g 1821

<210> 1396

<211> 2570

<212> DNA

<213> Homo sapiens

<400> 1396

acccttcact taccgcgcgc ccggggtgac tcggatccgt ccaacacgtc ggggaatcct 60  
ttctgtcctc acccccgggc gccccagcgc cggaacgctg ctgcctctgt gtagctgctc 120  
ccggaaggag tttcatcaaa cttttaaggg gctttggttt tgggttgtgt tgataaaata 180  
ccaagaaggg gcatgaaggc acgaacgtcc cgggttcgtc tccctgctgg tcccaagcct 240  
gaatcccagg gcgggggaat gtctaggtcc ttccgggccg gcaaggtgtg gtcgctcagg 300  
gaccctgtc cgaagacgtc agggaaaaga ggcacagcct gtgggtcgca gtggccagga 360  
gcgcgtggcc gctgctggtg agagagtggg agacgcctgg ctttcaggctc ctgagctgcg 420  
ggcaccggag cgtgggaccc cggctgcagc accgccacgc gtcgccccc tcccacctgc 480  
agggcggggg atgtctgtcc aagaggccgg ggcgacaagc ccgccggcca ggattctcaa 540  
ggaaccaggc ccagctcagc ctctctcggc gggaccagag tgggaccggg gccgcggcgt 600  
ccgaagacgc tgcgggccag gggtcctcct cggcgccagc tccgtttcct ggggtctcgc 660  
gacgtccgga catcagggtc gggggtgtgg agacggcggc ggagccagag tccccaccaa 720  
gtcagttcca ggaggcggcc cgcgcgttc ccgcagtgtc cgggaggtcg ctgggggtgg 780  
ctttgcgtgc aaccgggta aaggccctgc agccgtgagg ctggcgctgg gaggagggtg 840  
gaaaatctca aagtcaccaa tcccgggtgca aatggcggca ggggccgcgg gctgtcggac 900  
gcaggcgaga ggccaaaggc tgacttcgcg cggccgtgag tcccagagg caacaggggt 960  
acctgagcgc cgaggggatc ccgagactcg gaaaaaccgg aagagcctga cccagggag 1020  
cggagagttt ggggtgcgct ctgagagctg tgactccacg gtcccgaat ctttgaaag 1080  
ggcgctctgg gctcagagct cccaactagc cggaggacct gggctagcgc ccaggcctgg 1140  
agcgtctggg agggggcgct gggctctcggc cccctcccc caaaaggga ctgagacttt 1200  
tttctgcgtg cttccttcgg cgcttcgggc agctctgtcc tgcggcccaa gctggggaga 1260  
agacagcggc ccgcgccaca gggagctgcg cccggacca gactccgcc gcgcttctgc 1320  
agagcggagc cctaggtgcc cacctggtag cccagaaaag gccggacctg ggcgccggga 1380  
cgctcgcggg gccgcacttg gaggggcttt ccgggtcctg gccgggcggg ctctcctgcg 1440  
gcgcggaatg gaatagagcg ccggctgcag agccaccgg acggggaaaa gcagcgggtg 1500  
cgccggccag ccccggttcc cgactctgga gggaggaagg agcgggcggg tgggggtggg 1560  
ggtgaggcg agggttgcgg ggagcgttta gaaggcctg ggcagccaga agaagaaaag 1620  
aggacgact ctcccctagg gaccagaggg tccctgcgta ctccccccag gcccgggaca 1680  
caggttcccc cagcgcctt ccgcctccca gtctattcgg cttgccccag cgcgtgccc 1740

cacgtccccg agggccccggc ccaggcccag ccggcgagtc ccggcctgct ccactctgca 1800  
 caaaacgaaa cccaaatgcc caaaaagctc aggaggggaaa tttaacaaaa accctgtccc 1860  
 ccgccccaca ccccctttca cttttaacaa gccagctgcc aagagaaaaat tgaaataaaa 1920  
 acgaaatgat agatagcggg ggacactatt ttccaaatgg tgaaatatcc tctaaaaaca 1980  
 tgttccccaa ggccaacttc gcggctggta gccccttccg acgcctttgc ctcccagaaa 2040  
 atcacaacaa agcgatcgga aattcggcca cgggtcccggg aagaaggagt agcagtgagg 2100  
 ccccggaacc cactgcggcc gaaactgcc tgctctcttt aacaaaaata aaaaagataa 2160  
 gaagaagaag taaaaccctt taatacatca aatatacgga attttaatct ttaaagcgat 2220  
 acattgtcta ttattttagt acatgacgta aaccttgtcc ccttctcagc gggtggactt 2280  
 aaaaattaaa aatagttaag tgttcctttt aaagaacaaa ataaggcaaa tgaggttttg 2340  
 gaatagaatt ttttcttttt cttttttttt ttgttgtttt cttccagaat acatacaaaa 2400  
 aaatacccat tctcttcgat ggtatacacc ttaaaaataa ttgcaatttg aaatcagagc 2460  
 tgacaaattg tgactttttt tttcattttt ttgttaacaa acatgcatgt aaatttgtgt 2520  
 ttcaatcaga cattaaataa cgtacaatac aatcatagca attttaaagt 2570

<210> 1397

<211> 2082

<212> DNA

<213> Homo sapiens

<400> 1397

ggtgcataat aaagccatgt cccacctgcc tacggccccc cgagtgttgt ttcaactacc 60  
 tgccatccat tcaccactc cccttggacc ccagctcagg ttggaacctg ataattggcg 120  
 tagtcaacag gattctgagg tgagttagtc ctcagcccct gatggtcctg ggtcagctat 180  
 gtggtctcag catgggttgt ggtaccttgt ggcagccttc ctgctcagat gggccccggt 240  
 gaaaacacgg gtgatggtgg acgggtctcc catgaccatg gagaaggcgc tgaagcactt 300  
 tgaagcacag agcactgaaa aggagcgagc ctttgccggc agagtggat gggcgttttt 360  
 gactgtgcta caggaagtgc acactcagtc cctgagggat acagctcagg taagggacct 420

ccagggtcaa gcagagcgcc tggagatccg gacatacagc ttgaaacgag aattagggcc 480  
tgccactagt gtgggcctgg gccagccatc ccagtcagag acccccgcca ggtctgatac 540  
caaggaggaa gaacctccac tgcaggctca cccagtggtc cgtcagaaaa tagagcagga 600  
acagccactg gggccccagg gcgtgggggt tcagggaccc cctactgtgg tggagcacat 660  
gtcatacagt gcctataccc caactgactt gcataaatta ggtaaacagt gtcagcagtg 720  
catgggggaa cccctatcta cctggatgct ttgccttttg gatgaggag ctgatggtat 780  
tgtctgctct gcctctgaaa tggaaaagtt ggccctccatt atgacccatc cctccaacag 840  
cgattgcagg tgagcaggcg gttaacacag gggcgaggcg accacaccct gactgaatgg 900  
ctgatggctg tcatagaatg gtatggaaca atgccagaga aataccaaaa actgtgagta 960  
aatggcattc atatgcagag ctggtgcagg taattcagga aatgggtatg tggcaagttt 1020  
tgtttgattt aaatacctga gggccatatg ttgaatgctt tccctccac atgagggaac 1080  
ttgtgttgag ctctgcaccc ctgagtgctt teggctctct ggccactgtc cttactctgt 1140  
acatggggca ctgcgtacat gagatgacta ctgccatggt ggccctcaga gaagcagagg 1200  
gccattggca ggaccaggga ctttgtgcca taaaaaaggg gaaggtacc cttccacagg 1260  
ggccacctca tgggacaaaa aaccgcccc a gtgggtgacc tgcacacaga tgggaattga 1320  
cttgatttgg gctgggggtg accgagataa aactgatagg caaccagtg aagtgtgtt 1380  
aactttgtgg aggcaattgt cccagagca gcaattccag aaaatgcca agacggggca 1440  
ggatgatgtt gctcgacca gtccaccag gatgtccag ctcaaagact acttgaagga 1500  
tctgcaccac cttccagca gcagctatgg acggcttgcc ctgccacata cacttagctt 1560  
ctatggagaa ctggacatgg ctagagactt ggggtcccat gggcgatgcc tggaatgtga 1620  
aatgggagcg gtggctcacg cctgtaatct cagcactttg ggaggccgag gcaggcggat 1680  
cacgaggtca ggagatcgag accatcctgg ctaacacggt gaaacccgt ctctactaaa 1740  
aatacaaaaa attagccgga cgtggtggcg ggcgctgtg gtcccagcta ctcgggaggc 1800  
tgaggcagga gaatggcgtg aaccggggag gcggagcttt cagtgagacg agatggcgcc 1860  
actgcactcc agcctgggct acggagttag actccgcctc aaaaaaaaaa aaaaaaaaaa 1920  
aaaaaagctt tcctttgggg caaatatattt attattctag ggttcatcat gataaaaaata 1980  
tgtgaagaaa ctaaccaatg aatatattat ggaaaccaa atattttaaa aatactgatt 2040  
agaaaatcga atctaccatc atatagttag attattttgc tc 2082

&lt;210&gt; 1398

&lt;211&gt; 2811

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 1398

ttaaaatgcc	tcttgtaa	at	accttagt	at	tttggggagt	ttctggga	at	tctgtcgg	ac	60
aggactgctt	tatttatg	gt	agctttag	ag	tatgttact	a	tctacctt	atcttcact	tt	120
accatttatc	ttttccagt	g	ttttcttacc	tattctta	aaa	ctttcatt	ct	cctaaaaaa		180
tgtcagtgtt	tggaccagt	t	ccaaaagag	a	gtgccattag	gattcttag	a	ggaatcat	at	240
taaatcaata	cattaat	tttt	cgggggtg	gc	ctcaggat	ct	tcagcagggg	tctgtgtt	tc	300
tttgtctcac	cctgcaggg	c	ttcagagg	ac	aggagatt	tc	cagcaacatg	agggtaag	ag	360
gatggtagat	gtggggtc	ag	agactgtg	cc	ggtagtaag	t	ggggtagagg	tctgttct	cc	420
aggagcaata	ctggcagac	a	gggtgtgcca	catccctg	cc	aggtctacct	gagagctct	g		480
ggaacgagga	agtactgat	g	gggtgtgcca	tgtttcac	ag	cagataaagc	aggactcc	ag		540
aggagcccac	ctctccctta		agagggggacc	agccagtct	a	ctctatgccg	cctcagcccc			600
cactggctct	ccagctagca		tctccttttt	tttactaat	g	ccaatcagcc	cagacaggg	t		660
ccttcagttt	gaatcaatt	t	agtgtaacag	cctggcccac		tccagctcca	aagccagggg			720
agaattcgga	tgctttgctg		gcaaagccct	ccctgatgga		ttttgggcgg	cttgcagaaa			780
tgaacataaa	cagagatggc		gatgttatct	atggacatcg		taagttagca	gccacccgac			840
ccacaggagc	ttgaaacgag		atctcagggc	agatggaact		tccccgagag	aaggacctct			900
ttctcaggcc	tctggaaagt		cctctgtcat	gctcatgtct		cagtcccccg	attcaggaat			960
ccctcgccga	caccctgctt		ccttgccctc	tcgtccccct		gcccgcctgc	ctccccatca			1020
actcctctcc	gttttctgtc		tccttaggaa	ataagcaaag		agggcaatcg	cctccttgga			1080
ggctctggag	acaattatag		ggtgagccta	ggggcaggca		gggttggctt	taggagaagg			1140
gatggtgaag	catgctaaga		tcctgggaaa	agaaacaaaa		atatcagttt	cttcttgcaa			1200
gctgctctga	atctgcgtcc		agtgaccatc	aagagaccaa		aacaggggttc	tgggatcccc			1260
atctccatct	ttggttcatt		cattccttcc	ttccttttga		tttggatcgg	agccatgtta			1320

cttttgtaag gggagaaaac agataaaagt aacagaagaa tggtaagg gatttccata 1380  
cttagggagg cagtgttgag aaggagaaag tctactgagct ttgaggtaga agatgaggtt 1440  
tcgaaagcca gctctggcca ggcaccagca taactgtaat cccagcactt tgggaggctg 1500  
aggtgtgggg atcatttgag cccagaagtt tgagaccagc ctgagcaacg taggaagacc 1560  
ctgtctctac tttttaaaaa gaaaataata ggccatgtgc agtggctcac acctgtaatc 1620  
ccaggtagct aggattacat gcctcagcct cccaagtagc tgggattaca ggcatgtgcc 1680  
accatgcctg actaattttg tatttttagt agagatgggg ttctactatg ttggccaggc 1740  
tgttttcaaa ctcttgacct caggtgatcc acccacctcg gcctctcaaa gtgctgggat 1800  
tacaggcgtg acccagcatg cccagcctca aaaaaattta agatatatat taaaatcacc 1860  
accagctcta tcatgtcatc tgtatatctt caggcaagtc agctaacctc tccgagcctg 1920  
agcttcctcc agtaaaatga ggacagtga acctgactca cgcagccttc agttactgta 1980  
cagctttcca tgtcaccacc agaccaaggt gttgtggagt ccagactctg gagacagatg 2040  
ctgcataagg catggtgctt ggcgtgccgt gggactacac gttagctaat ctcatgtgt 2100  
tgaggtgttt tggggacaga ccaggtatgga ggcaagagtc tgaatattga gattcagggg 2160  
actgggtggg gttccatggg agcaatccat tctaagaaag ctttccaag tgaacttttt 2220  
ggtgctgtgt aaggaagaga aggcagcttt atagagagga ggacaggaag cctggaccga 2280  
ggtggggatg aagcaatccg gggcaggttg acaggtggca ggcatgatag gaagcataag 2340  
ccttggacat cgggtccccct tttccccacc caggggcaag ggtcgagctg gggcagtgga 2400  
ggaggtgacg ctgttggtgg agtcaatact gtggtgagtg gaggcaacac tccaccttgg 2460  
gctgggacca tgggtgtcaca caatcctcgc ctccccctct gccactcaga tctcccgact 2520  
ctgggtcaca aagtgggttc ttctctcatc ccatactctc ttggttccat agaactctga 2580  
gacgtctcct gggatgttta actttgacac ttcttggaag aattttaaat ccaagctggg 2640  
tttcatcaac tgggatgcca taaacaagga ccagagaagc tctcgcatcc cgtgacctcc 2700  
agacaaggag ccaccagatt ggatgggagc cccacactc cctccttaa acaccacct 2760  
ctcatcacta atctcagccc ttgcccttga aataaacctt agctgcccc c 2811

&lt;210&gt; 1399

&lt;211&gt; 1895

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 1399

ttggtggg	cg	ggagctacgc	cggcccaagc	cccgccgggg	accagcgagc	cgggaggagg	60
agcaggcgcc	acagccgccc	cgcgccccgc	gcccgttgt	aatccggtcc	gctccttatt		120
cagccgccgg	gaactgcgag	gaggcgatc	gtagcagcag	cagcaaattc	gcctcgcat		180
tgcaactctt	tttttttttt	tggtggggcg	gggggcgcgc	ggcaaaattc	tgtctccgcc		240
cccccttttc	ttgcccactt	ccatttgcaa	gctgcatctg	cctctctaaa	aaaattgagg		300
agttcgggga	agggcagggg	gccataaatc	agagttggac	ctgcaataac	ccccacacct		360
acagggcaac	catgaccgag	gagagctctg	acgttcccag	ggagttgata	gaaagcataa		420
aggatgttat	tggcagaaaag	ataaaaattt	cagtgaagaa	gaaagtaaag	ttggaagtta		480
agggagacaa	agttgaaaac	aaagtgtgg	tgcttacatc	atgccgagcc	ttccttgtaa		540
cagcggaat	ccccaccaag	ctcgagttaa	ccttcagcta	cttgagatt	catggcgctc		600
tttgagcaa	gtcagctcag	atgattgtgg	aaactgagaa	gtgcagcatt	tccatgaaga		660
tggcgctgcc	cgaggacgtg	agttaggtgc	tggctcacat	aggcacctgc	ctgaggaaga		720
tatttcctgg	cctctctcca	gtgagaatca	tgaaaaaagt	ctccatggag	ccatctgagc		780
gcctggctag	tctccaggcg	ctgtgggaca	gccagaccgt	ggctgagcag	ggcccctgtg		840
gtggattttc	tcagatgtat	gcctgtgttt	gtgactggct	tggattttca	tacagggaag		900
aagtacaatg	ggatgtggat	acaattttatc	ttacccaaga	caccagggaa	ttgaattttac		960
aagatttttag	tcattcttgac	cacagggacc	taataacctat	cattgtctgt	ctggaatata		1020
atcagtgggt	cacaaaactg	tcctctaagg	atctaaaact	gtccactgat	gtctgtgaac		1080
agatcttgag	ggtggtgagt	aggtccaatc	gactggaaga	attggtgttg	gaaaatgctg		1140
gacttagaac	agattttgca	caaaaactgg	ccagtgtctt	agcacataat	ccaactcag		1200
gactccacac	aattaacctt	gctggcaacc	cactggagga	tagaggtgtg	tcctctttaa		1260
gtattcaatt	tgccaaactc	ccaaagggat	taaagcactt	aaattttatct	aaaacctcat		1320
tatcacctaa	aggggtgaac	agcctttctc	agtcactcag	tgccaatcca	ttgaccgcct		1380
ctacccttgt	ccacctcgac	ctctcaggga	acgtccttcg	tggagatgac	ctctcacaca		1440
tgtataattt	tttggcccag	ccaaatgcca	ttgttcatct	ggattttatcc	aatacagaat		1500

gttccctgga catggtctgt ggagctcttc tccgtggatg ccttcaatat ttagctgtgc 1560  
 tcaacctctc cagaactgtc ttctctcacc ggaaaggaaa agaagtacct ccatctttca 1620  
 agcaattttt tagtagttct ctggctttga tgcacatcaa cctttcaggc aaaaaactgt 1680  
 ctccctgagcc cttaaaagca ctgttattgg gcctggcttg taatcataac ttgaaagggg 1740  
 tttctctgga tctcagcaac tgtgagctga gatcaggagg tgctcaagta ttagaagggtt 1800  
 gcattgctga aatacacaac atcaccacgc ttggaactag atacagaaat gctgttttga 1860  
 gagtgtactg aataaaagat tacatgtttg aaaac 1895

<210> 1400

<211> 1856

<212> DNA

<213> Homo sapiens

<400> 1400

ctttatcgct ttcagatttg gaggccaatc actgccacct tttatttccc tgtgggtcca 60  
 ggaactggat ttctttatct ggtcaattta tatttcttat atcagtattc tacgcgactt 120  
 gaaacaggag cttttgatgg gaggccagca gactatttat tcatgctcct ctttaactgg 180  
 atttgcacg tgattactgg cttagcaatg gatatgcagt tgctgatgat tcctctgac 240  
 atgtcagtac tttatgtctg ggcccagctg aacagagaca tgattgtatc attttggttt 300  
 ggaacacgat ttaaggcctg ctatttacc tgggttatcc ttggattcaa ctatatcatc 360  
 ggaggctcat acccaatgga cttgggagga agaaattttc tatccacacc tcagtttttg 420  
 taccgctggc tgcccagtag gagaggagga gtatcaggat ttggtgtgcc ccctgctagc 480  
 atgaggcgag ctgctgatca gaatggcgga ggcgggagac acaactgggg ccagggtttt 540  
 cgacttggag accagtgaag gggcggcctc gggcagccgc tcctctcaag ccacatttcc 600  
 tcccagtgtt ggggtgcgtt aacaactgca ttctggctaa cactgttgga cctgacctac 660  
 actgaatgta gtctttcagt acgagacaaa gtttcttaaa tcccgaagaa aaatataagt 720  
 gttccacaag tttcacgatt ctcatcgaag tccttactgc tgtgaagaac aaataccaac 780  
 tgtgcaaatt gcaaaactga ctacattttt tgggtgtctt tttctctccc tttccgtctg 840

aataatgggt tttagcgggt cctagtctgc tggcattgag ctggggctgg gtcaccaaac 900  
ccttcccaaa aggaccetta tctctttctt gcacacatgc ctctctccca cttttcccaa 960  
ccccacatt tgcaactaga agaggttgcc cataaaattg ctctgccctt gacaggttct 1020  
gttatatttatt gacttttgcc aaggcttgggt cacaacaatc atattcacgt aattttcccc 1080  
ctttgggtggc agaactgtag caatagggggg agaagacaag cagcggatga agcgttttct 1140  
cagcttttgg aattgcttcg acctgacatc cgttgtaacc gtttgccact tcttcagata 1200  
tttttataaa aaagtaccac tgagtcagtg agggccacag attggtatta atgagatacg 1260  
aggggtgttg ctgggtgttt gtttcctgag ctaagtgatc aagactgtag tggagttgca 1320  
gctaacatgg gttaggttta aaccgtgggg gatgcaaccc ctttgcgttt catatgtagg 1380  
cctactggct ttgtgtagct ggagtagttg gggttgctttg tgtaggagg atccagatca 1440  
tggttggttac agggagatgc tctctttgag aggctcctgg gcattgattc catttcaatc 1500  
tcattctgga tatgtgttca ttgagtaaag gaggagagac cctcatcgc tatttaaagt 1560  
tcactttttt gcctatcccc cgtttttttg tcatgtttca attaatttg aggaaggcgc 1620  
agctcctctc tgcacgtaga tcatttttta aagctaattg aagcacatct aagggaataa 1680  
catgatttaa gggtgaaatg gctttagaat catttgggtt tgagggtgtg ttattttgag 1740  
tcatgaatgt acaagctctg tgaatcagac cagcttaaata acccacacct ttttttcgta 1800  
gggtgggcttt tcctatcaga gcttggctca taaccaataa aagttttttg aaggcc 1856

<210> 1401

<211> 2640

<212> DNA

<213> Homo sapiens

<400> 1401

ttttatgtaa gagaaacaga ccagagttcc tccgatggcc aggaaccttt tagtacttcc 60  
gtttatctgt tgaacatatc caaagcttga atactaatat gcataccag cctctcaaag 120  
aagctaaaag gatgcctgac aggcccatca aatgggacaa gtcttattac tcctttactg 180  
gattcaagga ccctgatgaa gaccttgaac aagtctcgag agtggaaca actctcacat 240

cctggttaga taacaatggg aaaagtgctg ttaaaaagct aaagaacagt ttgccactta 300  
gaaaagaact agatcgttta aaagatgaac tgtctcatca attgcaactc tcagatatca 360  
ggtggcagag gagctggggc atcgcccacc gctgtagcca gctgcatagt ttaagccgct 420  
tagcacagca gaatttgga acacttaaaa aagcaaaaagg gtgtacaatc atatttacag 480  
accgttctgg catgagtgcg gtgggccatg tgatgctagg aacaatggat gtccatcacc 540  
actggacaaa actttttgaa agattgccaa gttattttga ctttcagagg aggctgatga 600  
ttttagaaga ccaaataagc tatcttttag gtggcataca agttgtttat attgaagaat 660  
tacagccagt attgacactt gaagaatatt actctcttct tgatgtgttt tataatagac 720  
tgttgaaaag tagaatacta tttcacccctc gaagtttgcg tggtttatac atgacacctt 780  
acagtgcagc atatgctcca agcttgcatg aactcgggca ttttaatat ccaacactct 840  
gtgatccagc aaatctccag tggtttattc tcaccaaagc tcagcaggca agagagaaca 900  
tgaaaagaaa ggaagagtta aaggttattg aaaatgaatt gatacaggca tcaacaaaga 960  
aattttcttt ggagaagtta tataaagagc ccagcatttc tagtatacaa atggtggatt 1020  
gttgtaagag acttctagaa caatcactgc cttacctaca tgggatgcac ctctgcattt 1080  
cacattttta ctctgttatg caagatggag acctttgtat tccttggaat tggaagaatg 1140  
gagaagccat taagtaacac agaaatctgt tttatttttt taagagataa gaaaggaact 1200  
taaattaaaa atatttaaat ccacaatttg atataacagt attatttaca taagaacaaa 1260  
gtttatgttg gttggcaagg ctagataaaa agatgttaga atgaaagaac atatttttag 1320  
tgatatgtaa atgaaggatt ctacaatagt catatatttt tatatgaatg aatgttgggt 1380  
tgggctggag aggtatgtgt gtgtaaatat aaaggctctc cattcagagt atagctctga 1440  
aataatggaa ctcatgtcta caattcaaca tgcactgtga tagttacatc tcatgtaaat 1500  
atacacagac atattttgca gccagtaatt gacagttaat gtccaaaaca ggtgattgat 1560  
aggtaacaga aattagataa ccaccaattt tgccaagag aaagactaga aggactaaaa 1620  
gcagttgaat gtatggtact gacattgtca taagcagtct gataaccagt ttattgaaac 1680  
gtgtgcatta acagagaatt taattttaaa ccataattt ctctatcca ttaaaatatt 1740  
ataattgtta gtagtatgaa accaacagga aatgtttttt aatcatttag tgaggtgatt 1800  
catttgtttc atgggcaaac actatccagg aaaagccttg cttgcctgtt tcccaaagag 1860  
ctctaagaaa taggatcaag tgtaaaatgg ttcagacatc tcaggatttc ttgtcactct 1920  
tctcaacccc gatcttctg ttattactga tgtttgaac cctgtcatta gccccggcct 1980

ggttaaagcc cctcagagtc acctctcatt catagcaata gaattcaacc ccaagtgggt 2040  
gatgggtgtcc ccagcacagc cgagagacct gatctctgga ttcagtgttt ttagctcttc 2100  
gagttttaccc taagatacct tcgggcaata tttttaacca acccaaaagc tcttcagggtc 2160  
atttctgaag aggacaaggt gaatcttggc ttggaacacc atttttgggc tcttgctact 2220  
gaatgaatca gaaaggaatt ttttctgaag agcattagaa agtaaaggag atgttaaaat 2280  
aagttcttga agtatgtttt atatttatct aaaacactga ttttaaaagt ttacattcaa 2340  
atgtgtattc aaaagaagta ctgatttgta attattatag tttgtgtgta tcatcccttt 2400  
taaccgtgcc taacaactgt acttaaatit tgttttctag tgtaacaaat gtttcccata 2460  
agattttcta gagccaaata atgggagtgaa aaaattcctt aagtgttata taagaaaata 2520  
tattagaaaa tcagctttgg attatacgat ttctaaaata tactaataca gaatcctcag 2580  
taatatgttt tgaattggat tttttctcag aactgttaca taataaataa tacatcaacc 2640

<210> 1402

<211> 2178

<212> DNA

<213> Homo sapiens

<400> 1402

ggcctgctgg agtcagcatg gccgcggccc ctgactaccc agtcccttc taccctcga 60  
gcggcaggaa tccgtcccca cgcccttttc ctttaaaggg caacgggccc aaggtggggc 120  
gggcggcgcg gctcccgca tccattcagg tcaaaaggga gagtgatcaa acaggagagc 180  
cgagggggacc tatattcaga gacttaaccg gacacctgga cagaccatta caacttgga 240  
cttttcagga gaatgaggga aatgtagtta ttgcacctga gcctcactcc agctctgagg 300  
tcctcttcac ttctctttgg aagaaaattg gatattttt cctagttgaa agagtagaga 360  
tctgatttct ccaaggatca tcgctttttg acacgggatt attagaagca ttcatcctc 420  
tatcaaggag ttttgggata cttgccataa gccaaagccct ctgatagggt ctggaaacat 480  
caagctctgt gccaggaag ttcatccttg gactgcacgc atgaacgagt ttgctgtctt 540  
cccattggat tcagccagtc cgcggtcctg gagcaaattc aggacctgac acataagaac 600

tggtggagaa ttacctgcag aatagatgct gaatctttgt gcctctctgc tctccaagaa 660  
gatggcatgc tccttgatga caagagccac ctctgatctc ccccatccag tcaaaatctt 720  
ccagaaaaca gaccatcaat atggatttgc agcatgtatt gtgattgttt aacataatit 780  
tccaacagcc aattatgtgt ggccactata cgtagatatt tctttagctc atattttaat 840  
acctgtcctg tcattctaca ttacatatgt ggaagacctt taaccagtt tagtttatat 900  
ataataagta caaaagggaa aaaagaaagc tgcctttttt cacctctttg gggacttctt 960  
cagtcttttt ccagatgtgg aatccagatc gtgttatttt ctttccagac tgggcctagg 1020  
agcaatacgt taagagtcag caaagcctca agaatcatcc agctcttcag caaagcctca 1080  
agaatcatcc agctcttttc tcctcttcaa agttgccctt cttttctctg aacattaatg 1140  
tatctctctg taccattat ccattgctgt gcagcaaact acctcaaac ctagcacttt 1200  
cagtcagcaa acattatca gtttacagag tttctgagat cagaagtcaa ggagtgggtc 1260  
acgtcgggtg ttctggctca gtctctcatg gggctgcagt ggaggtgcag aatctgacgg 1320  
ggctgacgat tcacttccaa gctcactggg gggctgttt tcaggacaac tcagctccct 1380  
gccacatggg cctctccata gaacgcttat aacacagcag ctggcttccc ccagagtaag 1440  
tgattcaaga gagcaagcca ccaaggctgg gtgcgggtggc tcacacctgt aatcccagca 1500  
ctttgggagg cggaggtgga tggatcacct gaggtcagga gtgtgagacc agcctggcca 1560  
acagagcgaa accctgtctc tgggaaaaat acaaaaatta gccaggcatg atgtgatggt 1620  
gggcgcctgt gatcccagct actctggagg ctgaggcaag agaattgctt gatcctgggg 1680  
ggcagagggt gcagtgagct gagataaaaa agagagagca agccaccaa tgggagccac 1740  
acaccctttt ataactctgg ctctgaagtc atccattgta tcctattctg tagaagtaaa 1800  
tcactaagtc cagtcccgga agggcaatta gactctatct cttgaaggaa gaagtatgaa 1860  
tttttgcag gacagtcag cactgcctaa tgacgttttg tcaatgatgg accacatatg 1920  
taacggtggt cccattagat aataatggaa ctgaacagtt cctgctgcct aatgacactg 1980  
aggccacat aacatcatgg tgcaagacat tccttatgtg tttgtggtga tgccggtgga 2040  
aacaaccta ctgtgtgcc agttgtacaa atgtctaggc catacaatta tgtacagtgc 2100  
gtaatacttg aacataataa caaatgacta tgctactaaa aaaaaaaaaa aaaaaaaaaa 2160  
aaaaaaaaagg ccacatgt 2178

&lt;210&gt; 1403

&lt;211&gt; 2720

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 1403

```
ttcagagggg acttagcaag gaaggaaggt atcagagtta taggaacact gaatataaga 60
actggaagca gctttatgat cagttctcga atgccctgcc ttctcgttct caattcagta 120
tcctttccat tgttccttgc tgtatattat tggccagcca gtctggatgg agcggcaggg 180
atggttcaaa taaatgaagg ccataccaaa gtcacacctat tgaaggctca tgttgggctt 240
aggccagagc tcaactgatac tgagatgtcc cttattctgt gtctctttca ctgtctatgg 300
tattactctg ctttcacaga agagcgagtc ttggggaaca gaaacacccg tatcacccta 360
gttcaacagc ttcttgcaac tcccaaattt acttatttcc tgccctctgc ctttttcatt 420
gatctagctg ccagtgaat atttgctgct tctcagtac ctttgtattt gatatgaatt 480
gtttattttc acttttaagt tgaaatataa tttgtatatt atacaatata cccatttaag 540
gtgtacaatt cagtggtttt tagcagtcag ttgtgcagcc atcacaattt gacagtattt 600
tctttccccc tagaagaaac accatacgaa ttcatgttta cccatttcc cccttttctc 660
cagcctttca caacgactaa tctacttttt ctctatggat ttgtctagtc cggatttttt 720
ttttcttttt tttagacagg tcttgctctg ttgcctaagc tgggtgtgcag aggtggaggc 780
tgcaagtatc atggctcaca gcaacctcga cctcccgggc tcaagtaagt gatcctccta 840
cttcagcctc ctgagtaatt gagactgcag gcacacacca ccacgccctg ctaatttttt 900
attttttgtg gacacgaggt ttcattatgc tgcccagggt ggtctcgaac tattgggctc 960
gatcaatcct tctcatttcc tcttcccaac ctgttgggat tacaggtgtg gtccaccaca 1020
cctggccctg gatatttcat ttaaatgaaa ttgtcaaatg catggccttt tgtgtctggc 1080
ttatttcact tagcataaca ttttcaagat tcatccatgt tgtagcatgt gtcagaactt 1140
cattttgata gctaaataag tttctgttgg aaggatgtat cacattttgc ttatccattg 1200
atcatttcat ggattttttt ctgtcgttaa gaattagtag gaaaaattgg atatactgct 1260
gactttatca gcttctgaca gatctcagtg tcttcagttt aatattaaga aattgagctg 1320
ggcgcagtggt ctcatgcctg taattccagc actttgcggg gctgaggcgg gcagattggt 1380
```

cgagctcagg agttcgggac cagccttggc aacatgggtga tacctcgtct tttaaaaaaa 1440  
tacaaaaatt ggccaggcat agtggcatgt gcctatagtc ccaactattc aggaggctga 1500  
aaaaaataaa taaataaaat aatgtttaaca aaattctatt agtatgagta ttgagaaaga 1560  
agggtgatttg ggtagctttt ttttggtcac aacactttta cacaggacag taatatcact 1620  
tcttttagatc tatatgtcga cacttagttt tctagacatt tctatgtaca tgatcttatt 1680  
agaccctctt aatgactgag gtaggactgt atcagatgtg atctagagta tgttaagtga 1740  
tatatagcta atcagtaaga gacccaaaat aggtgtccag ctcttccggg tctctagttc 1800  
agtgttttcc catatcctct gcctttcaaa tgagttttta aaggtgaaaa atgcccatTT 1860  
gtttcctcta gagttttgtt ccttttacag ttaaaataaa tcgctagagt aaagccttgt 1920  
catttgaaag agaattggat ttatacttta tggccctaag gggcaaacta tctggagaaa 1980  
aggttttatg tagtataaga atgaaattta caataatagc tgaatgacag tggaatgggc 2040  
tgctttggaa ggcaactagt cccttttgct gggctgtaca ggcacatgct tgaccatcac 2100  
ttggagttat tttcaaaaac atgttgaata aacctgataa ttctataatg tagcctatgg 2160  
gctaatagat ttgaaaacta attttagatt tgtttttctt tcagctccat ttatcttaaa 2220  
gaaattggac agcatatgaa gacaggacat cacatatgaa tgcacgatat gaagagcctg 2280  
gttacagttt cgactcctct ctgcaagtga ataggcccag aaaggtgtaa gagactcttt 2340  
gaatggacat aaaattctgc ttgttaagaa caagtttggc tctggtaact gaccttcaaa 2400  
gctaaaatat aaaactatTT gggaagtatg aaacgatgtc tcgtgatctg gtgtaccctt 2460  
atccctgtga cgtttggcct ctgacaatac tgggtataatt gtaaataatg tcaaactccg 2520  
ttttctagca agtattaagg gagctgtgtc tgaaatggca ctgtcttgtc agtcatttct 2580  
gtttaccctt ttcttctgcc cagagtgtat ttgtgaagag tctcttatat tatgttttgt 2640  
ggaaatcagc acacaaccac aatgacatTT aagcacagga tcattattag tctatgtttt 2700  
taataaacat atcaattaag 2720

<210> 1404

<211> 2757

<212> DNA

<213> Homo sapiens

&lt;400&gt; 1404

atgcgggtgg	gagagccagg	agggcacatggg	gtgcatgggtg	agatgaaaac	gatgtgtgct	60
tgtgacaaaa	agcccagaag	aggcagtaag	gagggaggag	tctatccctt	atggagagca	120
catggacttc	tgggtgggtg	tcctgcagtt	cccttcctct	tgagtctttt	taactggggg	180
tccggtgtgt	tttgtatcaa	tgacatgtat	gcgtgtgcat	gtgtaccttt	gcaggtacac	240
atgtgtgggtg	tgtgtgcatt	tgcttgggtg	gcgtgcattt	gtgtgtgtgt	ttgtgtgtgc	300
atgcatgtgt	gtgtgtttgt	ggtaggtttg	tgacacacac	ctgcatacct	ttgtgcctgg	360
gagtggcatg	tgtgtgggtg	gtgtcgtgtg	gcatgatgga	gttgagccg	tgggtgcattt	420
gtgagattac	ctcgggtggc	taaattgggg	attaggaggg	catcctcagg	tccttcccac	480
tgtctgctcg	tctgcccaca	ggcggctgtg	ccctaaacag	gaggaggcca	ttcacgcctc	540
gcctgagttg	tgtccaaggt	gtgcgtgtgg	ccaggggtcc	atccgcttcc	ctctagccca	600
gcccctgaac	acagctgcag	tgacaggccc	cactcctcag	ctctgctccc	catcccaact	660
cgaagacgct	gccctggccc	tgtgtgtgca	gctcatgtgg	actgggaggg	cagggcaggt	720
gcaggtcttg	gggcaagagc	tggagctgtc	ttttccttcc	tgacagccg	cagagcaggt	780
ggatggggct	gcttccttgc	aagggtcccag	ggccaggccc	cctggggatt	tattcgtggc	840
ttagaagggt	ggggccagaa	gcaggcgtag	tggggattag	ggactcagca	ccccagctc	900
tcagtccagc	agacagaccc	accccaggct	gactacagag	gctgcacctc	agcaaacagg	960
taggccctgt	tcttggggag	gattcccacc	aggcaaaggc	cagctcccgg	gccctcacct	1020
gccacgtgtc	caagctagga	tcctgtttgc	ctttcccttg	ggggctggga	gggaggcctc	1080
caacccccctc	tggcattacc	agcatcacag	ataggagtcc	caagtccat	gagaagtcc	1140
tggaataggt	gtagattcag	tagatcttta	caagaccata	tctgcagggc	aaggtaccag	1200
aggacagagg	cggggacagg	gacacttcca	ttccagacct	agcagcccag	cactcagcac	1260
catgcatggg	agcaaattggc	tggactcctg	ggtgggggtg	gggtctcaga	gcaggctccc	1320
agagggcttg	gaggtgactc	caccaggtgg	ggacggcagc	tcccaggtag	ggtgtcatca	1380
gagtagacag	cattgcttgc	tagggacccc	tggggaggct	gacagggtca	gtgggtttca	1440
gttggggggc	tcccctgctg	agaacccagt	aaagccggcc	ttccattcgt	ctcccgtgtg	1500
cccagagcct	ggtctgaggg	ccgccctgtg	catgccggcc	cttccaacgt	ggcagagctc	1560
agggggaaga	acaccaggc	tctcaggaga	ctctcaggcc	aatgtctcca	tccctgggtc	1620

agccctttcc tgccatgaat tcaggaaggc agaggcagct cagcagatgg ggactagagg 1680  
 ccgcactgct atccacagcc tctctttctca cccccaggca tgtcgggccc caggcctgtg 1740  
 gtgctgagcg ggccttcggg agctgggaag agcaccctgc tgaagaggct gctccaggag 1800  
 cacagcggca tctttggctt cagcgtgtcc cgtgagtcca gggctctcgt ggaggggtgc 1860  
 gtagacctca aggctgctga gtagtcctaa caccgtgagc aggccaggag cccaaaccca 1920  
 acaggcacac ccaccctgca gactgtccga actcttgac actcccccc acacagaacc 1980  
 tgaggttatc acactcctgc tgtcctgcgt gcctgtgtct cccttcctg ggtctgttga 2040  
 gtactgataa ctgggccaca gtgtttcttt ctgggagaac cctcgccttg taggctcctg 2100  
 cgccttccca gtggtgtgct tcactggctg cctgcaccc gggtctcaag tgctgtcagg 2160  
 actgcaaggg aaacgctggg tggggcattg ggctccgagc agccccgat gggtgacagg 2220  
 tctctctgct agataccacg aggaacccga ggccccggca ggagaacggc aaaggtgagt 2280  
 ggggtggggc cctatggctg gagcaccccc agtgtgggca gggctgctgg gccctgcagc 2340  
 tgtgttggct gtgctgccc tctcctgccc ccatcaatcc ctaatctgtg agatgggtcc 2400  
 ttgcctcaa gggccggtga actcaatcag ggtgtcagcg ccacagcgtg gtgtcgcctt 2460  
 ccttgggtac agtgtgagag gccggccaag gcctggggct gtcttcctcc caccttgag 2520  
 gcggccacag tgctgctgtc ccagccctg tcctggactc ggcaattatc agcacttttg 2580  
 agctgtcttc tggggctcctg gtaaaaaggg ctactctgcc tgcctgattc aagacaaggg 2640  
 acccccttcc caacagcacc cccgccccctt gccgtgcaac ccagtgggtc ccagtcaccc 2700  
 caccacatcg tcccctctgt aacctgacgg tctccagttc cccaccacc ttcccc 2757

<210> 1405

<211> 2138

<212> DNA

<213> Homo sapiens

<400> 1405

ttaggtctga cctctttgtc ctgtgtgtag gtgaaagcag tctcatttct gtgtagtact 60  
 gtggcgggaa tgcaccagc tctgctgtag gtggagggtc tcagttacct gctgtacttc 120

ctccagacag gactgttgtt ctagtaactc tcagcaatga aggaaccaat gcagtctccg 180  
actttactgg cttgagtttc gctcttgttg cccaggctga gtgcaggggc gtgatctcgg 240  
ctcactgcag cctctgcctc ctgggttcaa gcgactctcc tgcctcagcc tcctgggtag 300  
ctgggattac aggtgcccac caccaggcct ggctaatttt tgtattttta atagagacgg 360  
ggcttcgcca cgttgcccag gctgatctcg aactcaaggg atggctcacc tcggcctcca 420  
aagtgctggg attacaggcg tgagccaccg cgcctggcct ttcctggctg cttataactca 480  
ctcacctgc agaaaacaca gagaccaggc aggcgccgct gtgggttctg aagagcgttc 540  
gccgcagcgg tgggtgaagag ccagagcggg aagccaaaac ggctcctcct cgggctggtc 600  
ccagcctctc agcggggagg agggctctag tcctggcgtg cagacagtgt tctgtggctg 660  
ccgtgtgttg gacagactgg aaagaccgga atgccactgg gggcaggtgg gttaggtagg 720  
ttggccagag ggctcacatc tggggttgaa ggaaacggga taaaagccac tgagtttctt 780  
gggccgggac ctgagcgcta cccgtgtctc cacctcgccc tcccgtgtgc gtggctttct 840  
cctagctctt gggcacattc tcacgtcccc ccataaacc gtcaccttca tttctgctgg 900  
tgcttttggg agtcagacct acagactgca tcagcatcac caggcagttt gctttctgga 960  
gccttttcca gaactgtcaa gcagactctg ggggcaaggc ctcgggatcc tcattttaaa 1020  
tacaaggttt aagcccttcg tttcaggatg gatttctgca gccactactt cccagctact 1080  
gtccttcgct ctgcccgggt tttcagagcc tgatgtgcc actggcgacc cacacccct 1140  
cagctgcttt tcagaaccac acgataaaat ctgccccgaa agctgctgca gcactgtctg 1200  
cgctcacagt gccaccaca ccaccgcca caggccaggc cagccaggct tccgattctg 1260  
ccctttcttg gagaccatc ctctccctc cgggagtgat gcccgtgggt cagctggagc 1320  
gagcctctct attgccgaaa agccttttct gacactcctg catctttagt ttgggacatc 1380  
tctcccacta ccaaacttaa accacatgag ggcaggggct tcatttttaa gcagttggct 1440  
ttggtgaggc tgggtggtgat gaactagcaa caccatcttg ccctggtagg tgacttcccc 1500  
cagcactgag ttggaacaaa gcagaagctt tctgtgtgga aacagcattc ggtttggtga 1560  
tccttctatg taagaatacg atctgatgtt ttctaagtta attaatacaa aatacatatt 1620  
gataaaacac tagataaaag atcacagata gattcattac aaaattttta taatgggtat 1680  
aaaatcacca gtccccttgc ataagctcta accacagtga gctaccctgt ttcagctgta 1740  
acacagtctc ctgtgaatca caagatacat taactactga taatttttct gtgaaggatc 1800  
tatattggaa ggcgtctgac aacctccacc agcacctttt gatgaagaac tggagtctga 1860

ctgtgttcgt tagtggatta cttctgagct tgcaacatag ctactgaag agctgttaga 1920  
 tcctgggggtg gccacgtcac ttgtgtttat ttgttctgta aatgctgcgt tcctaattta 1980  
 gtaaaataaa agaatagaca ctaaaatcat gttgatctat aattacacct atgggatcaa 2040  
 taagcatgtc agactgatta atgtctactg tgaaaatttg gtagtaaatt ttcatttgat 2100  
 attagatata aatatctgaa tataaataat tttaatat 2138

<210> 1406

<211> 1801

<212> DNA

<213> Homo sapiens

<400> 1406

gcaggctctg ctgcagctgc tgtgcgggat ggggggtgaag ttcccaggctc aatcgagttg 60  
 tgtccctagg aggattatgg ctgcctctgc tgagtcatgc aggttgctcag ggaagtgggg 120  
 gaaagccagc agtcacaggc ctacccagc tcccatgcaa tccaaagggc cattctcact 180  
 cccaccgtgc cccctctctg caacagcact gagtctgttt tcagacagtg gacaagcagg 240  
 gctgagaact tgccccatgt taccacctt ccagctgcag tagaaaaggg ctttagttct 300  
 tcctgcacct gtggagtcta catgccggat atgtgccctc ccctaagttc tggccaagag 360  
 gcttctcaac cagttcaaatt tgttacaaag ttcagctgaa gacttccttc tccctgtggc 420  
 attttccccg aaggatccct gtgggtgccag gcagaaatgg cctgcttggg gaccagaga 480  
 gtcceaaggg cctctccac tgettctct accccggtat ttcgcttggc tctccaaact 540  
 gactcagctc caggtaaggc tggaatcttt tccgcaaac tagacctca ggttccccag 600  
 tgggggtgtg tgtttggggg tggatgatct cccttccca cttccacagt ttgggcactc 660  
 acggtatttg ggggtgtctc cgggtcctgc aggagcaatc cacttccttc agagggtctg 720  
 tgggtcctct gggattcctg atttattcct gcagtcattc tggagctaaa attcatgatg 780  
 cgacctcca cacagtgttc tgtccatcca agtcagagct gcaatctagt cctgcctcct 840  
 gtctgccata atcttgagta tctctacttc tacttctgtg gcacagaagg tctccccagc 900  
 tcctattccc tgaatcctcc tccttctccc ctctttctct gtctctctcc ctcaagtctgt 960

cgtctttaat tttttttaat caatgttttg tggtttttag tgtacaagtc tttcacctcc 1020  
 taagtatttt atttttttca gtgcaattat aaatgggagt tttcctaatt ttctttccag 1080  
 atagttcatt attacttcac aggtttttta ggtaactaaa caaagaaaga acaggacaaa 1140  
 aaaaaaaccc tttttaattc tagttttcat tcaaagtgtg ttattgagta cctaccatgt 1200  
 aaagtactg ttttagcact ggaaatataa tgttgaaaaa gtttaggaagg gtttctgctc 1260  
 tcatgagctt atattccagt agaggaagca gtcaataaac aataaatata agtgctatga 1320  
 ggaaaaaata aagcaggata aaaagtttagc cataggaatg gatggctttt tagataggat 1380  
 ggtcagggaa ggtctcactg attgttaact cttagaccc aaataaggta agggaggaga 1440  
 catgagacaa tatgggggaa gtacattcta gacagaaaca aacagcccat gcatagattc 1500  
 tgaggcagga acatacttgg atttgaagag aataagaagg ccagttgggt agagtgcaga 1560  
 gaagaaagag atgaggtcag agagactggt ggggttggat tagagacaga aaggaggctag 1620  
 agggccctca ggtctttgac tcttaccagt atggaccacc agacctgtga gtgagtaatg 1680  
 tttcaaatta ttctagcccc agatctcaag ctgctctata gagatgagcc tgccccactg 1740  
 tgtcctgtct aaacttctgg cccgcagaat ctgcgagcac aataaatggt tgtttaacac 1800  
 c 1801

<210> 1407

<211> 1972

<212> DNA

<213> Homo sapiens

<400> 1407

aagtgtgac tgggaccgac agtgagggag gggagcccag agggaagttg ataaccctaaa 60  
 tgtcatctgg tatctccagt tgttcattcc ttgatattgc tgatgataat gttacaaact 120  
 gtaccaggga aagcaaaccat agtcaactgcc cctggtaaga aggcagggga ataactatct 180  
 tagaaaattt gatgaaaatc aagtttgtaa aatattaata cctgaaaagt catatactta 240  
 catctccaac attcatttaa aactgagttg tgggatatgt aagttgcatt tgtgtgcatg 300  
 tgtatgtatg tatgtatgta tgcagaaaca ttttgatttg tggatgtttt atgccttaaa 360

atatttactg gcttgaaaat atattttaac tggcttaaaa ttttagaggt gagctccctg 420  
tgaatatccg tgttaaattg accattttga aatttaagac aatatatata tcgtttcaga 480  
tattgttcca ctattttgat cagaaaagta tgctagagaa ccatatttta cataaaagaa 540  
tatatatatt aacatttttc agtcagcaga tatttatitt atgtcatgcc catttcattt 600  
tctttttcac tgtagggac ttttgccgtc aggatgaaaa gtgtgattat tactttagt 660  
tggatgcaga tgttgttttg acaaatccaa ggactttaaa aattttgatt gaacaaaaca 720  
gaaagatcat tgctcctctt gtaactcgtc atggaaagct gtggtccaat ttctggggag 780  
cattgagtcc tgatggatac tatgcacgat ctgaagatta tgtggatatt gttcaaggga 840  
atagagtagg agtatggaat gtcccatata tggctaattg gtacttaatt aaaggaaaga 900  
cactccgatc agagatgaat gaaaggaact attttgttcg tgataaactg gatcctgata 960  
tggctctttg ccgaaatgct agagaaatga ctttacaag ggaaaaagac tcccctactc 1020  
cggaaacatt ccaaagctc agcccccaa aggggtgtatt tatgtacatt tctaatagac 1080  
atgaatttgg aaggctatta tccactgcta attacaatac ttcccattat aacaatgacc 1140  
tctggcagat ttttgaat cctgtggact ggaaggaaaa gtatataaac cgtgattatt 1200  
caaagatitt cactgaaaat atagttgaac agccctgtcc agatgtcttt tggttcccca 1260  
tattttctga aaaagcctgt gatgaattgg tagaagaaat ggaacattac ggcaaaggt 1320  
ctgggggaaa acatcatgat agccgtatat ctgggtggta tgaaaatgtc ccaactgatg 1380  
atatccacat gaagcaagtt gatctggaga atgtatggct tcattttatc cgggagttca 1440  
ttgcaccagt tacactgaag gtctttgcag gctattatac gaagggattt gcactactga 1500  
atattttagt aaaatactcc cctgaacgac agcgttctct tcgtcctcat catgatgctt 1560  
ctacatttac cataaacatt gcacttaata acgtgggaga agactttcag ggaggtgggt 1620  
gcaaatttct aaggtacaat tgctctattg agtcaccacg aaaaggctgg agcttcatgc 1680  
atcctgggag actcacacat ttgcatgaag gacttcctgt taaaaatgga acaagataca 1740  
ttgcagtgtc atttatagat ccctaagtta ttacttttc attgaattga aatttatitt 1800  
ggatgaatga ctggcatgaa cacgtctttg aagtgtggc tgagaagatg agaggaatat 1860  
ttaaataaca tcaacagaac aacttcactt tgggccaaac atttgaaaaa ctttttataa 1920  
aaaattgttt gatatttctt aatgtctgct ctgagcctta aaacacagat tg 1972

&lt;210&gt; 1408

&lt;211&gt; 2088

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 1408

tgtgtctttg ttaggagatt tcgtaccatg ttaatcatta tggaaacact acttaagaga	60
atatggctga aatatgtttg ggttttttaa aatatctttc ttacagacta atattgtctg	120
tggacctttc tacatttggt tgtttgtttt tgaacagtt ttgtcgccca ggctggagtg	180
cagtggcgcg atatcagctc gctgcagccg cctcctccca ggttcaagcg attctcatgc	240
ctcagcctct tgagtggctg ggactacagg tgcgcgccac cacgccaac taattttttg	300
tattttcagt agagacgagg ttccaccatg ttggccaggc tggctcga cccctggcct	360
cagtgatct gagcctccca aagtgtgaa attacaggcg tgagccacc cacctggccc	420
ctttctacat tttctaagtt cctctctctg aggacaaagg gtcaggagcg tagacaacgc	480
agaaagcttc tgcagacgtg gtcctagtta tgccagtgtt gccaccctgt gtgttgcagg	540
tcagagacga gcagcaccag tgtcccctgg ggaatctgaa ggtccccctc agccagctgc	600
tcaccagtga ggacatgact gtgagccagc gcttcagct cggttaactcg ggtccaaaca	660
gcaccatcaa gatgaagatt gccctgcggg tgctccatct cgaagcgga gaaaggcctc	720
cagaccacca aactcagct caagtcaaac gtccctctgt gtccaaagag gggaggaaaa	780
catccatcaa atctcatatg tctgggtctc caggccctgg tggcagcaac acagctccat	840
ccacaccagt cattgggggc agtgataagc ctggtatgga agaaaaggcc cagccgctg	900
aggctggccc tcaggggctg cacgacctgg gcagaagctc ctccagcctc ctggcctccc	960
caggccacat ctcaagtca gagccgaccc ccagcatcgc ctccgacatc tcgctgcccc	1020
tcgccacca ggagctgcgg caaaggctga ggcagctgga aaacgggacg accctgggac	1080
agtctccact ggggcagatc cagctgacca tccagcacag ctccgagaaa caagcttata	1140
gtggtcgtgc atgcctgcag aaacctcatt gccttctctg aggacggctc tgaccctat	1200
gtccgcatgt atttattacc agacaagagg cggctcaggaa ggaggaaaac acacgtgtca	1260
aagaaaacat taaatccagt gtttgatcaa agctttgatt tcagtgtttc gttaccagaa	1320
gtgcagagga gaacgctcga cgttgccgtg aagaacagcg gcggcttcct gtccaaagac	1380

aaagggctcc ttggcaaagt attggttgct ctggcatctg aagaacttgc caaaggctgg 1440  
 acccagtggg atgacctcac ggaagatggg acgaggcctc aggcgatgac atagccgcag 1500  
 caggcaggag gtgtcctctt cagcgtagct ctccacctct acccggaaca caccctctca 1560  
 cagacgtacc aatgttattt ttataatttc atggatttag ttatacatac cttaatagtt 1620  
 ttataaaaatt gttgacattt caggcaaatt tggccaatat tatcattgaa ttttctgtgt 1680  
 tggatttcct ctaggatttc gccagttcct acaacgtgca gtagggcggc ggtagctctt 1740  
 gtgtctgtgg actctgctca gctgtgtccg taggagtcgg atgtgtctgt gctttattat 1800  
 ggccctgttt atatatcact gaggtatact atgccatgta aatagactat tttttataat 1860  
 ctttacatgc tggtttaaat tcagaaggaa atagattaag gaaatatata tttttcttc 1920  
 taaaacttat taaattagtg tgacaaataa tcattttcat cttggcagca aaaagttctc 1980  
 agtgacctat tttgtgggtg ttctttttga aaagaaaagc tgaaatatta ttaaagtgtt 2040  
 gtatgtttct gccattatg aaagatgaaa taaagtattc aaaatatt 2088

<210> 1409

<211> 1718

<212> DNA

<213> Homo sapiens

<400> 1409

agcatcatcc aacaaccaca tcccttctct gcagaagcct ctgagaggaa agttcttcac 60  
 catggactgg acctggaggg tcctctgcgt gctggctgta gctccaggtg ctcgcttaca 120  
 ggtgcaattg acgcagtctg gggctgcgtt gaagaagcct ggggcctcac taaagctgtc 180  
 ctgcagggca tccgctgact cctccatcac ctacaacata cactggctgc gccggcccc 240  
 tggacagggc tttgagtggg tgggcaaaat caactctcgt gactctatca ccaattctgc 300  
 cccgagattt cagggcagcg tcacatgac gagggacagg tcctcgagta cattctactt 360  
 ggacctgagg agcctcagat ctgacgacac ggccgtctac tattgtactc gcagtatttg 420  
 gccccttgac tactttgatt cctggggcca gggaaccag gtcaccgtct ctccagcacc 480  
 caccaaggct ccgatgtgt tccccatcat atcagggtgc agacaccaa aggataacag 540

ccctgtggtc ctggcatgct tgataactgg gtaccaccca acgtccgtga ctgtcacctg 600  
 gtacatgggg acacagagcc agccccagag aaccttccct gagatacaaa gacgggacag 660  
 ctactacatg acaagcagcc agctctccac cccctccag cagtggcgcc aaggcgagta 720  
 caaatgctg gtccagcaca ccgccagcaa gagtaagaag gagatcttcc gctggccaga 780  
 gtctccaaag gcacaggcct cctcagtgcc cactgcacaa cccaagcag agggcagcct 840  
 cgccaaggca accacagccc cagccaccac ccgtaacaca ggaagaggag gagaagagaa 900  
 gaagaaggag aaggagaaag aggaacaaga agagagagag acaaagacac agagtgtccg 960  
 agccacaccc agcctcttgg cgtctacctg ctaacccctg cagtgcagga cctgtggctc 1020  
 cgggacaaag ccaccttcac ctgcttcgtg gtgggcagtg acctgaagga tgctcacctg 1080  
 acctgggagg tggccgggaa ggtccccaca gggggcgtgg aggaagggt gctggagcgg 1140  
 cacagcaacg gctcccagag ccagcacagc cgtctgacct tgcccaggct cttgtggaac 1200  
 gcggggacct ccgtcacctg cactctgaac catcccagcc tcccaccca gaggttgatg 1260  
 gcgctgagag aaccgctgc gcaggcacc gtcaagcttt ccctgaacct gctggcctcg 1320  
 tctgaccctc ccgaggcggc ctctgtggctc ctgtgtgagg tgtctggctt ctgcccccc 1380  
 aacatcctcc tgatgtggct ggaggaccag cgtgagggtga acattcttg gtttgcccc 1440  
 gcacgcccc ctccacagcc cgggagcacc acgttctggg cctggagtgt gctgcgtgtc 1500  
 ccagccccgc ccagccctca gccagccacc tacacgtgtg tggtcagcca cgaggactcc 1560  
 cggactctgc tcaacgccag ccggagccta gaagtcagct atgtaacaga ccatggcccc 1620  
 atgaaatgat cccggaccag atccgtccac acctgccact cagcagctct ggccgagctc 1680  
 acagtacaac cacaataaac tcttggtgaa tgaactct 1718

<210> 1410

<211> 2636

<212> DNA

<213> Homo sapiens

<400> 1410

aatattattg tttgagtgtt tgaatgataa actttggaat ttactgcatc cagttagaaa 60

agtttacttt tggccaggtg tggcggctca cgcctgtaat cccagcactt tgggaggtcg 120  
aggtggacag atcacctgag gtcaggagtt tgagaccagc ctcaccgaca tggagaaacc 180  
tagtctctac taaaaataca aaattagctg ggcatggtgg cacatgcctg taatcctggc 240  
tacttgggag gctgaggcag gagaatcact tggacctggg aggtggaggt tgcagtgagc 300  
cgagatcggt ccattgcact ccattcctggg caataagagc gaaactctgt ctcaaaaaaa 360  
aaaaggaaaag tttactttta agagtgatct ggggggttagc agcgtgagtt actgacagct 420  
cagacagtgg ctttgagaat gaaggagtc atcaaaggtg gccggagacc ctattcgact 480  
ccacaggacc gtgcttgatt cgagaacagt aagacctttc aacaaaacca gtgtcagggt 540  
ccaagattgg aggcgttggg agtcggggca agggcagaag caggagacc aggaggccag 600  
ggtgccgcag cgtccagtgg tcaactggtg tggcggcttg cacctgagtg gaagctgtgg 660  
tggtggcaag aaatgcatcc agcacgtgta tggtgcccag cccccccct ttgatccact 720  
gttacatggc actttgctca ggtccacggc caagatgccg accacaccag tgaaggccaa 780  
gagggtcagc accttcagg agtttgagag caataccagc gatgcctggg acgtgggga 840  
ggacgacgat gagctcctgg ccatggcggc ggagagcctg aactccgagg tggatcatgga 900  
gacggccaac cgtgtgctgc gtaaccacag ccagcggcag gggcggcca cgctgcagga 960  
ggggccaggg cttcagcaga agcccaggcc cgaggcagag ccgccctcac ccccagcgg 1020  
cgacctccgg ctggtgaagt cggtcagtga gagccacacg tctgtcctg cagaaagtgc 1080  
cagcgatgcc gcccctctgc agaggtecca gtctctccca cactcggcca ccgtcacgt 1140  
gggtggcaca tctgaccca gcaactctcag cagctcagcg ctgagcgaaa gagaggcctc 1200  
ccggctcgac aagttaagc agctgcttgc cggccccaac acggaccttg aggaattacg 1260  
gaggttgagc tgggtccgaa tccctaagcc agtgcgtcca atgacgtgga agctcctctc 1320  
aggttacctt cccgccaatg tagaccggag accagccact ctccagagaa aacaaaaaga 1380  
atatTTTgca tttattgagc actattacga ttctaggaac gacgaagttc accaggacac 1440  
atacaggcag atccacatag acatccctcg catgagccct gaagcgttga tctgcagcc 1500  
caaggtgacg gagatTTTTg aaaggatctt gttcatatgg gcgatccgcc acccagccag 1560  
tggtacggt cagggtataa atgatctcgt cactccttc tttgtggtct tcatttTgta 1620  
atacatagcc tttccagggt gtggtcggcc tcagattccc atccttgctg tgatctggag 1680  
agatgagcct taccgagga cagatgaaca gattatcctc agaagatgag gacatatcca 1740  
agacaactac acctttgccc aacctgggat tcaaatgaaa gtgaaaatgt tagaagaact 1800

cgtgagccgg attgatgagc aagtgcaccg gcacctggac caacacgaag tgagatacct 1860  
 gcagtttgcc ttccgctgga tgaacaacct gctgatgagg gaggtgcccc tgcgttgtag 1920  
 catccgcctg tgggacacct accagtctga accggacggc ttttctcatt tccacttgta 1980  
 cgtgtgcgct gcttttctcg tgagatggag gaaggaaata ctagaagaaa aagattttca 2040  
 agagctgctg ctcttcctcc agaacctgcc cacagcccac tgggatgatg aggacatcag 2100  
 cctgttgctg gccgaggcct accgcctcaa gtttgctttt gccgacgccc ccaatcacta 2160  
 caagaaatga gcccaggccc acccgcagct ggcctcactg tcccgggtgg cgcgccccac 2220  
 ctgcctggct ggtggtaggc ccctgtgagc tgggtcccggg ctgctaaaag gccttgtag 2280  
 gtggccccac cctccagggg agctggtgaa gatgggccac agacctggc tagggctgac 2340  
 aaagacaggg acagcctttg ttttctgaga taccaaagag agccagggga gggccccggg 2400  
 ttcggcggcc agaggcaggt caggggtccc ctctccctct ccctgcaatg tccttgccaa 2460  
 atgactgcct cctgctgccc ctagtccggg gcagcctagg aggccgacct tctttggagt 2520  
 cctgctgtct gggtgccagg gccggaacga ggtagtgcc atctcatacc tactctgaaa 2580  
 tgcaaaactt ctattctgtt gagtgaagaa ataaaatgta gacaaaatct agaccg 2636

<210> 1411

<211> 1922

<212> DNA

<213> Homo sapiens

<400> 1411

actcacaagc ttctcggccc cgaccttcgc cctgggaggt tctggccagg tgccgggagg 60  
 ggcgctgtgt cgagggcgat cccccaaag cagcgtcccg tgctaaaggt accccagggt 120  
 actgcctccc acatctcagt gcaggctgga tgaattggcc ttgtctgtgt ttctgtctg 180  
 agtgtgagtg tgagtgtccc ctgcgatgga atgtcgtcgt gtccaagggt tggttccac 240  
 cttgcacctt gagctgaggg gataggcttc agccaccctc gaccctgaac tggaataatt 300  
 aggtactgct taggatgaat atgatttgga gaaattccat ttcttgctta aggctaggaa 360  
 aggtgccaca cagataccaa agtggttacc acccagtggc ccctctggga tcaaggattt 420

taactgaccc agccaaagtt tttgaacaca acatgtggga tcacatgcag tggcttaagg 480  
aagaagaagc agcagccaga aaaaaagtaa aagaaaactc agctgtgcga gtccttctgg 540  
aagagcaagt taagtatgag agagaagcta gtaaatactg ggacacattt tacaagattc 600  
ataagaataa gtttttcaag gatcgtaatt ggctgttgag ggaatttcct gaaattcttc 660  
cagttgatca aaaacctgaa gagaaggcga gagaatcatc atgggatcat gtaaaaacta 720  
gtgctacaaa tcgtttctca agaatgcact gtcctactgt gcctgatgaa aaaaatcatt 780  
atgagaaaag ttctggttct tcagaaggtc aaagcaaac agaatctgat tttccaacc 840  
tagactctga aaaacacaaa aaaggacctt tggagactgg attgtttcct ggtagcaatg 900  
ccactttcag gatactagag gttggttgtg gagctggaaa tagtgtgtt ccaattttga 960  
acactttgga gaactctccg gagtcctttc tgtattgttg tgattttgct tctggagctg 1020  
tggagctcgt aaagtcacac tcgtcctaca gagcaacca gtgttttgcc tttgttcattg 1080  
atgtatgtga tgatggctta ccttaccctt ttccagatgg gatcctggat gtcattctcc 1140  
ttgtctttgt gctctcttct attcatcctg acaggatgca aggtgttgta aaccgactgt 1200  
ccaagttact gaaacctggg ggaatgctgt tatttcgaga ctatggaaga tatgataaga 1260  
ctcagcttcg ttttaaaaag ggacattgtt tatctgaaaa ttttatgtt cgaggagatg 1320  
gtaccagagc atatttcttt acaaaagggg aagtccacag tatgttctgc aaagccagtt 1380  
tagatgaaaa gcaaatctg gttgatcgcc gcttacaagt taataggaaa aaacaagtga 1440  
aatgcaccg agtgtggatt caaggcaaat tccagaaacc attgcaccag actcagaata 1500  
gctccaatat ggtatctaca ctctttcac aagactgaac tttgtaacat gttaaggtac 1560  
aaagccagag gactgtgcta ttcaaggact actgtaagtc tattgtttct caaaagacaa 1620  
tgagaaaaaa agaagagaat ttgtatttcc tgccgttttg tcataggtga gctcctttgt 1680  
gcattttaag cacatgtaag tggttcagca cagtatgcct tttctgtgc tttgaaaact 1740  
tgatatgctc aagcttggtt gaatttatta catctaacca ttttgcttgt tccttgattt 1800  
ttataagcat tcaattaagt tagtattatg tcaagtaatt ttgagaaaat gtaacttgac 1860  
attttttgca agtaaaaaaa attgtttatt tgtttaggct tagtaaacca gttcccaaac 1920  
ac 1922

&lt;210&gt; 1412

&lt;211&gt; 2958

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 1412

```
ctttctcctg gggaggcaga ccacagagtc aaggaactaa taacaaattg aatttctcca 60
gtataatcag agtcaattat tcctgtatgt atagtaacac cttttaattt tttttgttg 120
agatggagtc tcactctgtc actcaggctg gagtgcagtg gcacgatctt ggctcactgc 180
aagctccgcc tcccgggttc atgccattct cttgtctcaa cctcccaagt agctgggatt 240
ataggcgccc accacaacac ctggctatta gttttgtat ttttagtag agacgaggtt 300
tcaccatgtt agccaggatg gtctcaatct cctgacctca tgatctgcct gccttggcct 360
cccagagtgc tgggattaca gtcgtgagct accacacctg gcacaccttt taaatttaga 420
ctagaccttc caagtaatag accgactgtt cctgaggata aggtctcct aactcccatg 480
gggaccttct ttggtggctc cccaggaagt gtgtccgga ttggttcctt ctggtgggtt 540
cttggctctg ctgacttcaa gaatgaagcc gcggaccctc atggtaagtg ttatagctct 600
taaagatggt gtgtccggag tttgttcctt cagatgttca gatgtgtctg gaggtttctc 660
cttccggtgg gtttgtggtc tcgcttgact tcaggagtga agccacagaa ctttgcagtg 720
ttacagctct taaaggggca cgtctggagt tgttggttcc tcctgatggg ttcgtggcct 780
tgctgacttc aggaatgaag ccacagaccc tcacggtgag tgttacagct cataaaggta 840
gtgcagaccc agaggaagca gcagcaaat ttattgtgaa gagcaaaaga acaaagcttc 900
cacagcatga aacagcacc cagcggattg ccactgcggc ttgggtggcc agcttttatt 960
cccttacttg gccccacca catcctgctg attggtccat ttacagaga ggtgattggt 1020
ccgtttttac acagtgtga ttggtgcgtt taaaacctt tagctagaca gagtgtgat 1080
tgatgtgttt acaatcctta ggtagacaga aaagttaccc aagtccccac ccgaccaga 1140
agcccagtcg gcttcacctc tcctaaggag atggtaattg tgctgtagag gtctatggca 1200
gcactgcctg ctgaagtggg ggacaattgt tgcacgtttg taagggcagtg gctgtgcctt 1260
ggtttgttga ggggctcgag gcaggcctct cttccgttt cctgaaagag gttgtccatc 1320
cttgttaaat ttagaatgac actgacttgc ccagtgttg cttttcttac actggagaca 1380
tataccggga cttttctgtt gactgatggt agtaatggtt gccttttgat ttccttttct 1440
```

acattccttt cttgggtgtc caaattgacc acaattaaag caagggcctg agaaatgggg 1500  
 tatattcttt cctactctta atccagccat agcctgagct aaaagagttg ccttatgtaa 1560  
 gttacctcca atgccatcgc aatccttaat atatttagct aaatgagccg tccctctcag 1620  
 ggggtctaata gcagtttgac actgcactag cattttcgta tgcaggaagc tgtattacaa 1680  
 catcctgagc cgttttatta gtaatggctt tatacacagc ctcttggagc tgagcaataa 1740  
 aatcaatata tggttcttta ggtccttgac ggatagaact gacagaagga tgtttttcgc 1800  
 ctgtaacatt tatcctttcc catgcccata agcacacaaa gcgcagctga acaatggcag 1860  
 catcctccat tactgcttga tttctctaat caaccccagt tagggccaac tcccattaac 1920  
 tgttcaaagg aaacaggcac aggtggctgt gcttgtatgt tttcccctgc ctgagtttga 1980  
 gcttcacag cccaccaggt tttaaactgc aaatactgag atagggtgag aacagatttt 2040  
 gtcaaagtat cccagccaca tgggtattaat ctattatcaa gagccatatt ttttaataga 2100  
 gtttgcacaa aaggagagtt cggtcctgat tgactaatgg cttgcttaaa ttcctttagt 2160  
 aacttaaaag gaaaagtggc caattagctg tattctgtct tctctgctgg atgatagtaa 2220  
 caggaaattg ccatgcttca aggtctccct cggtcttagc tttatgaata gaattttcta 2280  
 tagcatcacc aattgctcca ggttttaata ttgcaactat aggagtagta agtttttcag 2340  
 ctaattcatc ttctcaccca ttaagaggag agagaggagg tggccattca cttaatttag 2400  
 cagggggcgc cgacgggcta gtaaaacata ctttttttag ttttccttc tttaatctcc 2460  
 tccggtagct gttcctcaca ctcagaatct gaagttagtt ttttactc atcctcctct 2520  
 tcctcatctc aatctgcctc atcatctgtt tgaaatggct caagagctgc ctttattagc 2580  
 gccacatga ccaaataga actggaatat ctgctccctc tttatacgcc ttttaaaaat 2640  
 ctctgccgat tctctcccat tcatccgact ccatagtcgc ttgttccgga agccatgggc 2700  
 aaaactgctt tactgtacta aagagtgata acaaattctg agtactaact ttcactcccc 2760  
 ctcttcataa taaatgccaa caaattctga gtactttcac tccccctctt cgtaataaat 2820  
 gccttaagaa atttaaataa ggccgggcgc ggtggctcac acctgtaatc ccagcacttt 2880  
 gggaggccga ggccggcgga tcacgaggctc aggagatcga gaccgtcctg gctggcacgg 2940  
 tgaaacctcg tctctact 2958

&lt;210&gt; 1413

&lt;211&gt; 2182

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 1413

```
atgtgttctg ctttcccagg gtccatggca ggagggctgc agcggcctca tttattcatt    60
tgtgccaggc accctgttaa tcatggagat accacgctga cctgccttca aggagaccat    120
attctagtag gagagctgag cagcgagatg gccatgtgta gatggtgcta tatgaaagat    180
caccctgatg tagaagccag gtggggcattc ttggcttcct gctccttttc tttcatatga    240
caccgaaaag tctctggata ttgcagttgg gccagacctg cagaaaaaga gaacattcag    300
ttaaacagaa gaacatattc tggagaaaaat ggggaagaga gtgaagacac agctggttca    360
agggaaaaat gccaaactgag cacagagaga aaaatgcctg ctgagagctc cacaaataaa    420
gaaacaactt acataaagtg gtgagaagca caggagagga cagggccggg gctgagaggc    480
tgaagtcca ggaccggttc tgcatttgct gctgtgtgac atggggccag tgacttccca    540
tctctgggct tcagttttct caattatcat ctattctcct gctttctcta taacattcat    600
ttattgattc cttgattcaa gaatatttct taagcaccca gtttgtgcca ggtacagctg    660
tcagtgctag tgattcagca atgaacaaag tggacaaaaa gcacatcctt atgtgagccc    720
tcatgcatgc agcaaacaca atcagtgaat tatggtgcag attcatttgt aataaggaga    780
aaacagaaag cacagaaggg gtcaggcagt ctaatctgga aggggtgacct ctgagtcaag    840
acataaggag gtgagggagt gagccaggag gacatctggg caaagcctgc tccaggcaga    900
ggggacagcc agtgtgagag ctgccctgaa tgcaaagcct acccactgcc ctttcttttg    960
gtgtctccac tggcctgctg gctgcagcag ctttctatca gacctccag cctccatctc   1020
ctcccctggg gtcttctagc cccacatggc cagccagggt gactctaaaa tataagtcag   1080
acccaacac gtcctgctc aaaaccacc aggtgctccc accacattca atgcagtgca   1140
agtcctcacc atggtcctct agcatctctc caagcccatc tgctcctct ctcctcact   1200
tgctcctttc cagctacact ggcctctgct gtacctggga catgccaagc aagaccagc   1260
cttggggtct ttgctcacgg cctctgcctg gatgttcttc cccagttat ccacaggtct   1320
ggcttcctga ctttattcag aggccaccct ctcaagaaga cacccttgac tgtttcgtct   1380
aagcaagacc ctgtcacatc caaccactcg cctcgcttta tttccctta cagcatttat   1440
```

catgacctcc catcatttta tatatttata atagtagata tgatcaatgg atcagatgtt 1500  
tattatgtga tggacactgt tctaaacatc ctagaattaa ttcattcttct cccaaactcc 1560  
ttgagattgg tattgccatt gaccacattt tatatatcaa taaccaaga tagagagagg 1620  
ttaagaaatt tgctcaaggt ctcccatctg gtgagtgtca gatcaggatt caaaccttg 1680  
agcttccatt atgagccaca acactctaga ccagggtgc ccagtagaac tttgcaatga 1740  
tgaaaatgtt ctgtgtctgc actgcccga gtagtgcca ctggatatgt gtaagtgttg 1800  
agcatttgaa atatgtgtga ccaaggaact gaattttgaa ttttattgca tttccatgac 1860  
tttagattta aatagccagg ctagtggcta ccaaattgta catagagccc tcgcacctct 1920  
tatttgctcc tttgttaatt tctgtctgcc acataaggat gaaactggcc tatgcattag 1980  
tttctcatt ttacagtaag ggaaacaccc ctggtacaaa gtaaatactc aatgctcatt 2040  
aatcaccatc atcatcaca ttattataac attatcatta ttagtctcca tgagatcgat 2100  
gactttatgt ttgttctc ctgaatccca ttacattctt tagcacatag caggtgttca 2160  
ataaatatat tatgaatgaa tg 2182

<210> 1414

<211> 1946

<212> DNA

<213> Homo sapiens

<400> 1414

ctccaatacc taatatttaa aaattacctt ttggaaactg atttatagga catattttct 60  
tccaggatc ttacctttat attgcagaaa tccttaacca gaaacaaaca cttctgtttt 120  
ctaaatgaaa caccattctt tctgattatc cgattctcat tttactcacg gggttgatct 180  
agttatattt tttccagctt tattttcaaa atttttccat tttttgtga attttattgc 240  
gataccaatt atgaaataaa atcttcagtt ctcatctctg tatcacctct taccattaga 300  
tttaatttag tcatggatga gcctaattat tgatggtaat aacaatctca actttaaaact 360  
tggaagaagc tacttcttca tttatggatt gatttggatt atctggcttt taatctatat 420  
aaacaacagc tctttgaaca agtcattttt attaagtagg aaactagact ttcatactt 480

ccatttagca ttgttacata gaaaacagga agacaatatc ttaagagtat ggaaattgaa 540  
 aatcaaacct aatcttagtg catgtaatcc ttttgtctga agtgcaactc atttttcttc 600  
 tttcttgata ttcttgattt tcaaagaaat actgatttca gcatttattt ttcttagaga 660  
 gctaggaatt aataaccttc atcatattat caaaattttt ttaagtgccg gacagctata 720  
 ctttgaagga agcagaattg aagatgggaa gttcattggg actgtgtctt ggaaaagcac 780  
 caagttcgtc tcagttgttc ctgttttttg caatggggag tgacgttcaa cctgggacag 840  
 aaatggaaat cgtagtagaa gaaacaatat ctgtgagaga ttgtttaag ttaatgctga 900  
 agaaatctgg cctacaagga gatgcctggc atttacgaaa aatggattgg tgctatgaag 960  
 ctggagagcc tttatgtgaa gaagatgcaa cactgaaaga acttctgata tgttctggag 1020  
 atactttgct ttttaattgaa ggacaacttc ctctctggg tttctgaag gtgcccattc 1080  
 ggtggtacca gcttcagggt ccctcaggac actgggagag tcatcaggac cagaccaact 1140  
 gtacttcgtc ttggggcaga gtttgagag ccaattccag ccaaggtgag aacagaatgg 1200  
 gatttcagca gccagtgc atataagaga agtaaattga ctgcctgtgc tctgagagtc 1260  
 aattgatata tttattttta aaacgtaaga tcttgaaaat caagacctat taatttcata 1320  
 agtcattcca gacatcacat aataataaca ctgtgccatt tctgtacgtg ctctgtaacc 1380  
 tctgtaaagc actatatatc ttgttgttta ttattatata aatatattac actttccaaa 1440  
 gacttttatg tatcatctct caagatcctc agggcaacag gggccccatt tatcaccacg 1500  
 taccagaata ttgagacttc atccaattct aatgatgtca ttttagccca caggggcaga 1560  
 gaccaggagt ccacatccta catgtcttcc aatctttctg cctcaaaacc ctgaggaact 1620  
 gcttctaggg catttgatat catctcactg acttctgaga aggaacatag acaagtacaa 1680  
 gcatgttgtc ttactcagca ctgagccgca cacatcacga tgggcagaag tcaactatcag 1740  
 tgagttctgt tgcccttgta caaagaggag ttccacttca ttataaagaa atggagcgag 1800  
 tatattttta ataggcccaa ctcttttagct atgtttttct ttttatcagg ctttacttat 1860  
 ttagtttttc tagtgccttg aagtatatta cttatatttc tttttaatct tttcagcctc 1920  
 agtaataaaa ttaatatata tgagtc 1946

&lt;210&gt; 1415

&lt;211&gt; 2162

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 1415

```
cttcacctgg ggattgcaaa ggaagtgaga acatccccga gcaagaccaa aaattgctga    60
ataaacacaa acccccttga gaatcacgcc aagagggtgct gcctcttcac ctggggattg    120
caaagcctga ccgccatgga cagcgtgccc ctcatctgtg actactgctc tggcttcagc    180
aaggtagggat ttgcaggaat ggaaagccca atgggcatgt tccccactgt cctcgggaaa    240
cttcggcacg atgtgagtga tgtcgggggtc tcctccctgt ggggtgctgc tcatccagag    300
gtggcctgct ggcccgggtca accccatccc ctctgccaca gggcggccaa ggcaatctgc    360
tgagcggggc gtggtgggtg cgaacgtgcc tccacaaatc caagtcggga gcacctggct    420
tgataacata cagatggccg ggccacctag agtctctgcc tcagctggtc gggggtggga    480
gatggggtgg gcaaggcctt gcccctctca ccactcccag catgcggccc actctgagag    540
ccgcaggctt agagagagca gcgatgtgta aatcagtaaa gtggatgcat tgtgaaaaat    600
cagtcttact gcccgtctcc catctctggc tcttctcaca ttcagagagg tatggacaca    660
gagaaggagc aatttgccct taggctaaac gggagtccat tagggtgagt ggcaatggac    720
actcagcctc cgtgatagga aggcagtagg agggcaggtg gggactggga cacaggccct    780
ccaagaggcc catctctgac atgccagcaa gtggatccca catcgccaga tcttctgtg    840
tttcaaggga atttagaaac acaggtgttt ctattgtggt aaagtataca cagtgtaaag    900
ctgtgttaac tgcacagttc agtggcatca agaacattca ccaccatcta tctccagaac    960
gttctcatcc tcccaaacgg aagctctggc cccattaaaa accaactgct catccccctc   1020
ccccggacaa cacagtcgcg tcataactga aactgggcga gtgggtctga gcctggctgc   1080
atgccaggta gggacagaga tgctcttct cccggaagag gaaccacctg ctccgagagg   1140
tgacttctcg aatccacatg gtgacaaagt ggtgggggca agacccccca gtgcaactgc   1200
gttcccagct catgctctgg atcatggagc tcatcctctg gaagttccaa tcgtccgtgg   1260
tagggagcag cgtcgtgacg tggaagatct cagatgtcgc aggacctcat ggcgatcact   1320
cttgctcttt gcagcacttg gagcaaatta ttggcagtgt ttctaattat ccaagataca   1380
ctggctcccg gagctgtgac agaggagaaa atcccgtctc cctctctaag aggataaaat   1440
gcacatggat gctgggagcc agtggatttc ctctcgttg tccaagtggc agggatcata   1500
```

gcagggacca ccctggcaaa tcgcaggtgc ctgcactcga gctagccaac cagcttgctg 1560  
 cttggggatt atggagctca gtggttaaga gctggggcctt cagggccggg gagactgagg 1620  
 ctccaatctc agccttgtcc tcagcacatg catgactcag cgcaagggtg ctgctgtggc 1680  
 agaggcatct cttttgcata atgtgattgt ccaaagtatg tatctcagag attcggcctg 1740  
 aaggttaaat gagatgagtg aatgtatgtt tgggtgcagtt tctggacat agggagtgtt 1800  
 tagcaatgat gacgatagca gtgatgataa caatgactag tatattcgtg tattcgctta 1860  
 aaacaacaga aatgtggcca tgtgcggtgg gtcacgcctg taatcccagc actttgggag 1920  
 gccaaagggtg gtggatcacc tgaggtcagg agtttgagac cagcctggcc aacatggcaa 1980  
 aaccccgctc ctactaaaaa tacaaaaatt agctgggcgt ggtggcacac gcctgtaatt 2040  
 ccagctactc tggaggctga ggcaggagaa tcgcttgaac ccgggaggca gagggtgcag 2100  
 tgagctgaga tcgcgccact gcactccacc tgggcgacag agtgagactt catctcaaaa 2160  
 ac 2162

<210> 1416

<211> 2756

<212> DNA

<213> Homo sapiens

<400> 1416

ctttctggtc tcggccgcag aagcgagatg gtgagttgtg actgtggtgt ttgtgaatcg 60  
 cgttccatcc tcgtcccttg tgccctctctg tttgctgtgc ttggggggct ggcaagattc 120  
 cggataaggg gaactggtgg gctggaaaga ggcatgcggt ggccctcaag agccagaaga 180  
 atgactgcta actggtgcct gggggggccta tcccgccgta attgtggtgc tagagccgca 240  
 ttgtgtcctt tgcctcggtc caacctttgg agacctttca cggctctagc cttggttggg 300  
 agccgagggga aggagtttgg gaatgtttgg ctctgtgtaa caatgaaata attcattggt 360  
 gatgctctct ggccggagtc tgtaaagata aggtgcattt cagaacattg caactcttgc 420  
 ggagggtttt aggtaacgtg aaatgcgggt agtggctctt gacttggcat tcgtggaaag 480  
 aggcttctcc cgcagtttgc atctttacga ttgcctttaa attttatcag taattggttt 540

cccggagaac tcgagtaa at tagaagttg ccaggtttca gaactattta ttcctttaat 600  
gtgcagacga agggaacgtc atcgttttgga aagcgctcgca ataagacgca cacgttgtgc 660  
cgccgctgtg gctctaaggc ctaccacctt cagaagtcga cctgtggcaa atgtggctac 720  
cctgccaagc gcaagagaaa gtgtaagtaa catttttcag gccaaactgtg ttagcttttg 780  
tttgtattgc acttaagtgg gggcataggt ttgaacttta tttggtgcct atcttaaaac 840  
tcgtacatct gtatgccgat gaggtggcat aaaactcgtg tgttaacaac acctacaagg 900  
tgtgtgggag aacaccgttt gaaatctttt ctgaacttat gttttagata actggagtgc 960  
caaggctaaa agacgaaata ccaccggaac tggtcgaatg aggcaccta aaattgtata 1020  
ccgcagattc aggtacagtt tgtatgttcg atcataattg gtccagtggg cttgaatgaa 1080  
accctcgtgt ttacttgtaa aaagataaca gtaccctgat ggttactggg gatgagatgt 1140  
tggaagcttt ttattttattg ttgtttttga ggcagggttt cactatgttg cccaggcttg 1200  
agtgtagtgg cacgatcacg gctcagtgc gcctcagtct cccagcctc aggtaatctc 1260  
atctcagccg cccgagtacc cgggactaca ggtgtgcgct gccacatgcc cagctaattt 1320  
ttgtatttat ttagagaat gggatattgt catgttacc aggataatct cggaactcct 1380  
gggctcaggc cagatgttga aagcttttat cttctgccgc tgtaaccttg acatcagtta 1440  
gtttggattt tattagtagt tttttcacta aacagtagta taaattaaat aacaggagca 1500  
ttgtttgaac taggggtcca aagtgttgat atttattagg tttaattggg gtcaaaattt 1560  
gtcaagacag tagtgaataa ggtctggagt caggcttggg tcaaccttta gtatagtggc 1620  
tgtgggcaag agtgctgtag aaaattgccc tgggtgctgc tgttgccctg ggctcttggt 1680  
actcaagtct tggccttaga gttataaatg cagaatctca gctccgccgt agacttagct 1740  
gagagaacct gcatattaaa gagtagtttc taagagatta acccatctaa gatctcagct 1800  
aagattcaga atgatgcaga cttacttta aagctgggtc tccttcggtt actatgttct 1860  
atttcagcaa ttctcagcta ttgatacttt gggctggata attctttgtg gtgggattgt 1920  
ccagtgc aaa attgaatatt ttgcagaatc cctagcctct acccactcag tctccggagt 1980  
gtccagtttt aaagatagca agacagttca gggctttgta gacaccata ggtgtgttca 2040  
tgtgtgaag caactttctt tgcatttagg gtcataacgt ttttgtgggc ttaatgttga 2100  
gtggtctgtt agtacaatat aggagttaag agcttgaact gaagccaggc ttttaaaagt 2160  
aggatagttg acctttctta gagtagatac ttcttagagt agatacagat gttaaataag 2220  
ttaaaatgca aagctcttgg tttagaaaat gtctgccatt aaacatgcta attgtttttt 2280

ccttgcttag tgaaagtagt tgggatctat tctcagtata gggaaccatt ttcacaaata 2340  
 atctgtgata tcttgccaaa tatgaacaaa catactggcc caatgactag tatagccaaa 2400  
 taagtttttg agcctttatt gcagttgcag ttaactatat ccgaaaatgg gtatctttta 2460  
 gcaaagtga gaatttcagc ttatcagtga tgttgtaaaa ataaatgtct gaacatatga 2520  
 atgcagtatt gatttcagca tttaactgag ataagcgcac tgaaatctgt ttaacaaaaa 2580  
 ttaaaatgta tgcacgatg ttgctgaagt aacttggtct tgtttttgac atcctgcagg 2640  
 catggattcc gtgaaggaac aacacctaaa cccaagaggg cagctgttgc agcatccagt 2700  
 tcatcttaag aatgtcaacg attagtcacg caataaatgt tctggtttta aaaaat 2756

<210> 1417

<211> 4313

<212> DNA

<213> Homo sapiens

<400> 1417

ggtggctaag cagcagcaag ggcctaggtg aggtgggatc gatggatggg ccacaggtgt 60  
 cctttctcct cagctgccag gtggaacagt gcaggagaaa caagctgtgg caggaggcct 120  
 gggggcaagg aagtacaagg ggcagctcag ccggccacag acccaagctg ggaggacca 180  
 aggccatgag gggttgatgg gccaggaggc tgggcagaga ggagccaagt agctggagat 240  
 gaggtgaggt gggagaggta gggacctcca ggcttgttgt cagaggaagg catttcagat 300  
 ctgagcaata tgcgtgagcc ccaggtgagt gtgagagcca agtcaggtct ctgctgagat 360  
 ctaggtggtt acagtggagg ggaactctga gtggatgggg gaggcatagc catcactacc 420  
 aatgatgggg gtaggggggc atcatccagg gccacgggga aaggggatgg gcattctgga 480  
 actcatccct tcctctgttc ctttcatcac aacaaacgtt atggagatta tgcgatacca 540  
 ggcaactgtc tagctgatag ggtgggggtc agagtacca gcgaggctag acatttgtgtg 600  
 ggattcagag aaagcatata atagggctcc tcccacaaga agcttgtggc cacaccaggg 660  
 agagagaatg gatgcacatg agcatacgaa actcttagaa ggacttaggc aggaagcaca 720  
 ggtgataggc agaattgtgtg atatgagggt aagggtgag cactgatgaa tcccctaattg 780

at tt t t g g t a a   a a a t c a t t a a   g t t a a g g t g g   a t a c a c a t c t   t g t c a t a t g a   t c a a a t g g t t   840  
t c g c g a a a a a   t c a a t a a t c a   g a c a a c a a g a   t g t g c g a a c t   c g a t a t t t t a   c a c g a c t c t c   900  
t t t a c c a a t t   c t g c c c c g a a   t t a c a c t t a a   a a c g a c t c a a   c a g c t t a a c g   t t g g c t t g c c   960  
a c g c a t t a c t   t g a c t g t a a a   a c t c t c a c t c   t t a c c g a a c t   t g g c c g t a a c   c t g c c a a c c a   1020  
a a g c g a g a a c   a a a a c a t a a c   a t c a a a c g a a   t c g a c c g a t t   g t t a g g t a a t   c g t c a c c t c c   1080  
a c a a a g a g c g   a c t c g c t g t a   t a c c g t t g g c   a t g c t a g c t t   t a t c t g t t c g   g g c a a t a c g a   1140  
t g c c c a t t g t   a c t t g t t g a c   t g g t c t g a t a   t t c g t g a g c a   a a a a c g a c t t   a t g g t a t t g c   1200  
g a g c t t c a g t   c g c a c t a c a c   g g t c g t t c t g   t t a c t c t t t a   t g a g a a a g c g   t t c c c g c t t t   1260  
c a g a g c a a t g   t t c a a g a a a   g c t c a t g a c c   a a t t t c t a g c   c g a c c t t g c g   a g c a t t c t a c   1320  
c g a g t a a c a c   c a c a c c g c t c   a t t g t c a g t g   a t g c t g g c t t   t a a a g t g c c a   t g g t a t a a a t   1380  
c c g t t g a g a a   g c t g g g t t g g   t a c t g g t t a a   g t c g a g t a a g   a g g a a a a g t a   c a a t a t g c a g   1440  
a c c t a g g a g c   g g a a a a c t g g   a a a c c t a t c a   g c a a c t t a c a   t g a t a t g t c a   t c t a g t c a c t   1500  
c a a a g a c t t t   a g g c t a t a a g   a g g c t g a c t a   a a a g c a a t c c   a a t c t c a t g c   c a a a t t c t a t   1560  
t g t a t a a a t c   t c g c t c t a a a   g g c c g a a a a a   a t c a g c g c t c   g a c a c g g a c t   c a t t g t c a c c   1620  
a c c c g t c a c c   t a a a a t c t a c   t c a g c g t c g g   c a a a g g a g c c   a t g g g t t c t a   g c a a c t a a c t   1680  
t a c c t g t t g a   a a t t c g a a c a   c c c a a a c a a c   t t g t t a a t a t   c t a t t c g a a g   c g a a t g c a g a   1740  
t t g a a g a a a c   c t t c c g a g a c   t t g a a a a g t c   c t g c c t a c g g   a c t a g g c c t a   c g c c a t a g c c   1800  
g a a c g a g c a g   c t c a g a g c g t   t t t g a t a t c a   t g c t g c t a a t   c g c c c t g a t g   c t t c a a c t a a   1860  
c a t g t t g g c t   t g c g g g c g t t   c a t g c t c a g a   a a c a a g g t t g   g g a c a a g c a c   t t c c a g g c t a   1920  
a c a c a g t c a g   a a a t c g a a a c   g t a c t c t c a a   c a g t t c g c t t   a g g c a t g g a a   g t t t t g c g g c   1980  
a t t c t g g c t a   c a c a a t a a c a   a g g g a a g a c t   t a c t c g t g g c   t g c a a c c c t a   c t a g c t c a a a   2040  
a t t t a t t c a c   a c a t g g t t a c   g c t t t g g g g a   a a t t a t g a g g   g g a t c t c t c a   g g g c t g a g c a   2100  
a c c a a c g c a g   a g g a a t t g g a   g a g g c c a g a a   t a a t c a g a a a   a g c t t t g g a g   g g g g t a g g a t   2160  
g t g a c c t a c a   t t t t c a g a a c   a a g a g t g g a g   t a g a a a a g g c   a t t c c a g g t g   g g a t a a a c a g   2220  
c g g a g g c a a a   t a c a t g a g a g   g g a a t t a a a t   c t g t t g t g a t   t t a t t t g a t a   g t a a g a t t g a   2280  
c c t g c c t g g c   a t c g a g t t g a   a g t a g a g g c a   a a a g a c a c t g   a a t a t t t g c a   a g g a g g t c c t   2340  
t a g a a t g g a g   t g a t a t g g a a   a t a a a c a g c c   a t t a t a g g t t   c t t g a g c a g g   a a c a t t t t g c   2400  
a t g a a a a g c a   c t g c t t t g g a   a t g a t g a g t c   t a g a a a g g t a   a c a c t g a c c t   c t c t a a g g t g   2460  
g c a t t c t a g g   g a g a g a c c t g   a g t a t t t g g g   g c t g a g a t t g   a g a g a g g a g c   t t a c t t t t c t   2520

tggatatattt ttatttacta ttcaagttct gcatcatgtg tgtttactgc ctatttaata 2580  
attatatttta aatttaaaga acccattgtg gcagcagggg gaattctcta agctcagtta 2640  
ctaaaggggtt atgaagctgg gtatggtagc acacacctgt agtctcagct acttgggagg 2700  
ctgaggtgcg aggatcgctt gagtttagga gttagtggga ggatttcttg agcccaggag 2760  
ttaagagacc agcctgggca tcaaaaaaat taagttaaata taaaatgtta aaaggttctg 2820  
tatatgggtgg agatggagga gatcggggga ggagatgaga aaggggcaag cataagtagg 2880  
aacaatatgca atatttcccc agctgcgcga gggcaggagc aggaagaact aaaccaatt 2940  
aggaacaaca gaggacagat gagtagatag cagacatctg acgggaaatg gccacggcac 3000  
acttctcacc caggcagttc aacgtaggca atttctgagt gccctggtat tttttgtgta 3060  
agtgtctaga aaacagatca caaagttagc caaattaaaa aggaagcagg gagtcctatt 3120  
tctccgagaa gaaagattta caggtgggat ctcaggcagg agccaagctg gagaagcagg 3180  
cttgattcct tgtagtgggt gaggagactg ctgggagagg gcagggaagc agagaccggc 3240  
aaaaagctgc cccaacaaga atcctgtgcc tgccaacctg gttacaaac atttcccact 3300  
ttatccccct cagaaagtca cagcaccat ttcatgttct gtgaggctcc caaggaggga 3360  
aacttctagt ttgctgtcct ttacctcacc cctgtgacca cagcactaat ttctcatgaa 3420  
ttcttgttac caatgagata caaatgtttg gggagctctg gcctggtctg attttgagct 3480  
ctgtggaaat acgcagacca cgggggagga ggccgggaaa tggactcggg ttgagggtt 3540  
gctcaaggat gcggttttgt ttttcggctg atttactcca agacagccag agattgttct 3600  
gtcgttgcca cagaggtgac taaacaggaa ggtaagtttg aggtaggaag aaaaccatcc 3660  
ccaggagttt catgtagcaa agaaggaagt agctgttaca aatgggtgac agtttacatg 3720  
tgggtctaac agtctcagct ctgttggtca atctttcagt tatactcaga gagtaagcgg 3780  
gaggagcctt ggggctgcta ttgagtgcag catcctgaag gctgttcttc aagtgttact 3840  
cagactacta tccaagagc actcaaggca gttcttcctc catccctgct cctagctcc 3900  
cttggctttg atgagtttat taaaaaggg ctattcactt tagaatagga gggtaattaa 3960  
gactcctggg ctgcagccca gatttactgc attttacaag ttaataatat gatttttttt 4020  
tgtagctcca attgattggg aacagaagat gaagacaaca gcataactaa attattttta 4080  
aaactaaaaa gccatctgat ttctcatttg agtattacaa tttttgaaca actgttggaa 4140  
atgtaacttg aagcagctgc ttttaagaaga aatacccact aacaagaac aagcattagt 4200  
tttggctgtc atcaacttat tatatgacta ggtgcttgct tttttgtca gtaaattgtt 4260

tttactgatg atgtagatac ttttgtaaataaat atgtacacaa gtg 4313

<210> 1418

<211> 2016

<212> DNA

<213> Homo sapiens

<400> 1418

agcacacaac aacttccaaa tgcctgaacc gcagtggcca gacattcctc cagaacctcc 60  
tccccagga gcttgcctgca agtgccagaa atctgaccac cagggcaagg aatgcctgca 120  
gcccagggat tcttcccaag ccatgtccca tctgtgcggg accccactgg aaatcggact 180  
gttcaactca cctggcagcc actcccagcg cccctggaac tctggcccaa ggctctctga 240  
ctgactcctt cttggcttag tggctgaaga ctgacgctgc ctgatcgctt cagaagccct 300  
gtagaccacc atggacaccg agcttttaggt aactctcaca gtggagggtta agtctgtccc 360  
cttcttaate aatatggagg ctaccactc cacattacct tcttttcaag ggcctgtttc 420  
ccttgcctcc ataactgttg tgggtattga cagccaggct tctaatectc ttaaaactcc 480  
ccaactctgg tgccaacttg aacaacactc ttttatgcac tcttttttag ttatctccac 540  
ctgcccagtt cccttatcag gccgagatat tttaaccaa ttatctgctt ccctgactat 600  
tcttggacta cagctgcate tcattgctgc ccttcttccc aatccaaagc ctcctttgcg 660  
tcctcctctt gtattcccc accttaacct acaagtataa gatactcta ctccctcctt 720  
ggcgaccgat catgcacccc ttaccatctc attaaaacct aatcacgctt acccgactca 780  
atgccaatat cccatcccac agcatgcttt gaaaggatta aagcctgtta tcaactacct 840  
gctacagcat ggccttttaa agcctataaa ctctccttac aattcccccg ttttacctgt 900  
cctaaaacca gacaaggctt acaacttagt tcagaatctg tgccttatca accaaattgt 960  
tttgcctatc caccctgttg tgccaaacct atatactctc ctatcctcaa tacctcctc 1020  
tactacccat tattctgttc tggatctcaa acatgctttc tttactatc ctttgcactc 1080  
ttcatctcag cctctctttg ccttcaacta gactgaccct gacaccatt aggctcagca 1140  
gcttacctgg gctgtgctgc cgcaaggctt cagggacagc cctcattact tcagccaagc 1200

tcttttctcat gatctacttt ctttccaccc ctccacttct caccttattc aatatattga 1260  
 tgaccttctt ctttgtagcc cctcctttga atctttctcaa caagacatac ttctgctcct 1320  
 tcagcattta ttctccaaag gatatcgggt atccccctcc aaagctcaaa tttcttctcc 1380  
 atccgttacc tacctcggca taattcttca caaaaacaca ggtgccctcc ctgctgatgg 1440  
 tgtctgatta atctcccaa cctcaatccc ttacaaaaca acaactccct tccttcctag 1500  
 gtatggtag tgccggtcaga attcttacac aagagccagg accgcaccct gtagcctttc 1560  
 tgtccaaaca acttgacctt actgttttag cctagccctc atgtctgcat gcagcagctg 1620  
 ccgctgcttt aataatttta gaggcctaa aaatcacaaa ctatgctcaa ctactctct 1680  
 acatttctca taacttccaa aatctatttt cttcctcata cctgacgcat atactttctg 1740  
 ctccccggct ccttcagctg tactactctt ttgttcttgc cccaccttaa ctgagtgatt 1800  
 aaccctgtga atttgcttct cctggctcag aagctcccc actgagcacc ttgtgacccc 1860  
 cgccccctgcc caccagagaa cagaccctt tgactgtaat tttccattac cttcccaa 1920  
 cctataaaac ggccccaccc ctatctccct tcgctgactc ttttcggact cagcccacct 1980  
 gccccaggt gaaataaaca gccatattgc tcacac 2016

<210> 1419

<211> 3091

<212> DNA

<213> Homo sapiens

<400> 1419

aatgctgtca ggagcaacat gccacccttc agtcctgcat cttctgtggt ctgatact 60  
 gcacacaaca gacggatcag cagctcactc tcaggaacag ggctgccaat cccctagaat 120  
 atacaagcaa gtccgggcga tgctggaccc tttcccttct cagctgatca cttgtttcca 180  
 aggcccttat ttcttggggc acatggccta tgacattctc ccgatgccag ttgccgtgtc 240  
 agccacgttc tccgatggaa acagtagaaa cgaactggga tcatgtcagc agatggaaga 300  
 agggaggaag ggggagagga gatcattatt gccaggtgat acagaagagg gctgagccgc 360  
 cagccttgag aaggagact ctggactctc aggggtgattc agggaaaggt gactcagccc 420

aaacaccttc agtcccagag gcaaattcct ggaagactgg ggcaagagcc aacctgaaca 480  
agaatggagg tggaaagggt gggaaggagg gaagctgtga gctacctgaa gtggggcagg 540  
gggcccccca gaggatggga tgctatgaaa gtgaaaacat ggctacacac cctgcctcat 600  
ttatctatta ccagcccccc caaaattgggt gtcttaaaac cattatcatc tatgtcatga 660  
gtctgtgcgg cgagttgggt ggtccttctg cctcccctag tctagctgtg tctgcagtca 720  
ccggggactg gcccgggctg gccagtcttc caggctcatg tccaggccgc ggtgggtgcc 780  
tgctatcagc tgagactgtc agtcggagca tctccacctc ccctcatagg acctcctcat 840  
gcaccacggg catctcagca taaagtgacc tccccgtgca ccacaggcat ctcagcatgg 900  
agcgacctcc caacgcacca tggacatctc agcatagagt gacctcccca cgcaccatgg 960  
gcatctcagc atggagcgac ctccccgcgc accacaggca tctcagtata gagtgcctc 1020  
cccacgcacc acgggcatct cagcatagag tgacctcccc atgcaccacg ggtatctcag 1080  
catggagcga cctccccgtg caccacgggc atctcagcat ggagtgcct cccacgcac 1140  
cacgggcatc tcagcatgga gcgacctccc cgtgcaccac gggcatctca gcatggagct 1200  
ggaacagaag acaggacatt cgatggtgca agtggaagct gcatacaggt caagagccag 1260  
cctgggaggt ccccatgccc ctctgcctca tcctgttgac cacagctaata cacggactcg 1320  
cccaaatttc acaggagagg gaacagcctc cacttctagg tgggagtggc cgagaggcca 1380  
tgcttttaac cagcactctc ctcttctctc tttctattcc tcctctcca ttctctcttc 1440  
tgctctctct tgtgccacc gctgtccaca cttggccccg agcaagggca agcggataaa 1500  
gacctctgag gtcagtgatg agaggactca tgcatatcga ggacctctt ggggaaggag 1560  
gacccaaagc tacaaaatcc taggaatggc aggaggcaca gggagaggca agggagtgga 1620  
gagtcctggc aagccccag cacacacctt gggattaggg aggcctccag ccagcaagag 1680  
gaagcttgac ccagggggag ctgctcccc agccccagca gcctcgctga ggcagagcca 1740  
agaggcatgt gggcatgcca ggaagtcccc ctcaattgag ggctcagctc ctgcaggctc 1800  
ggagcctgct gggggcaagg gccaggctct tgggccctgc cttcacgtga ctaatttct 1860  
ggagtcctgc caagtacagt ctgggtccag ggcctctgtt aaccttttct cacttggtta 1920  
cacctcactg ggcccaaagg tgttgcatct gccctttggc tcccagagac atgcaccaca 1980  
agggctgtgg accaatgtcc ttctctctaa cccctctccg ctgcctctg actgcaaaac 2040  
accatttct cccttgggag ggtggggact ctggctgatg gctcagcccc acattcaggg 2100  
caaaggacag ttggggagga ttgagctgtc cgccccctgc ctcgtcccc aggtctccca 2160

ccagacagtg accaacaact gctaaatccc tgaggcgccc ctcctccact ctcctcaac 2220  
 tgtctcatag attttggcag ctgcctctct ctctctgcct ccacctagta ccctctccct 2280  
 ccatccctca ccccttecta tcttctcttc tccctcctcc cgcaaggtct ccctgggcac 2340  
 cttccaggcc caggtgctgc acccctagaa atgaccaggg ctcagtcctt gagctgacat 2400  
 caccctccc aatcctgcag gccaggggag agacagagcc agctggcaaa gccctcagca 2460  
 agtggcagca agacccccag aagacactgc caagtgctgg aagatggtgg gcctttccat 2520  
 ctggagaaaa gctacgataa ataaaaataa atattactca tcaataaaaa gaaatgagct 2580  
 atcaagccac aaaaagatat ggagcaacct caaatgcata ttgctaattt aattggaaga 2640  
 agccagtctg aaaaggctgc atactgtaca attccaactc tatgatattc tgcaaaaggc 2700  
 aaaactatag aaacagtaag atcagtgggt gctgtggggg ttcgggatga acaggtggag 2760  
 cacagaggag ttttagggca gagacactat tctgtaggat cctgtaatgg tggatacctc 2820  
 gcattatttc tgcaaaccca taggatgtac aacaccacta gtgaactcta atgtaaatta 2880  
 tggactttag ttcataatag tgtgtcaata cttgttaatc agtggttaaca aacgtactac 2940  
 tatcctcatg caagatgtca atggggaaac tgggtggggag gtgggggtgg aggtcacgag 3000  
 gtcactgcaa actctgttct ttctgtgcaa ttctgtaaat gtaaacctct aaaacagaaa 3060  
 gtctatTTTT taaaatggta cacaaaataa t 3091

<210> 1420

<211> 2370

<212> DNA

<213> Homo sapiens

<400> 1420

tgaaagacaa ggccaaacat ttggataaat gtttgaagat gctcgatatg agcttttaaag 60  
 atgctgaacg ggggtgatgac acctcctgtg aaaacctgct tgatgctttt tcaataaagt 120  
 tatctgagac acatggctat ggggtacagg aggaattcac tgaggaaaac aaattactag 180  
 aggcttgtat tttcaaaaat aatgaactcc ttaaaaatat tcaagatgtg cagagtcaaa 240  
 tcagtaaaat tggctttaag gatcctactg ttccagctgt gaaacatcgg aaaaaatcat 300

taatcagact ggataaggtt ctagatgaat atgaagaaga gaagagacat ttacaagaaa 360  
tggctaattc tcttccacac ttcaaagatg gcagagaaaa aaccgtgaat caacagtgcc 420  
aaaatacagt agtcttgtgg gagaatacca aagccttggc caccgaatgt cttgaacaat 480  
gtgggagagt tttggagctc ttaaaacaat atcagaattt taaaagcatc ttgacaactt 540  
tgattcaaaa agaagagagt gtcattctccc tgcaggcttc gtacatggga aaggagaacc 600  
tgaagaaaag gatagcagag attgaaattg tcaaagaaga atttaatgag catttagaag 660  
ttgtagacaa gataaaccag gtctgcaaaa atctacaatt ttatctaaat aaaatgaaaa 720  
cttttgaaga gccccctttt gaaaaagagg ctaatatatt tgtggataga tggcttgata 780  
taaatgagaa gacagaagat tactatgaaa atcttggctg agctctagct ttgtgggaca 840  
aactttttaa cttaaaaaat gtcattgatg agtggacaga aaaggccctt caaaaaatgg 900  
aattacatca attgactgaa gaggacagag aaaggctgaa ggaagaatta caagtccatg 960  
aacaaaaaac ttcagaattt tctagaagag tggctgaaat acagtttttg ctccaaagca 1020  
gtgaaatacc tcttgaattg caggctcatgg agtcctctat tttgaacaag atggaacatg 1080  
tacagaagtg cttaacagga gaatccaact gccatgcact cagtggcagc actgctgagc 1140  
taagggagga tctcgaccaa gccaagaccc agatcgggat gactgaatcc ctcttaaaag 1200  
ccctgtctcc ttctgacagc ttggagatct tcaactaaact agaggagata caacagcaga 1260  
ttctacagca aaaacacagt atgatattac ttgagaatca aataggttgt ctgactcctg 1320  
aactctctga attgaaaaag caatatgaaa gtgtcagtga tttatttaat accaaaaaaa 1380  
gtgttttgca agatcacttt tctaagttat tgaatgatca atgcaagaac tttaatgact 1440  
gggttcagcaa cattaaagtg aaccttaagg agtgttttga atcatcagaa aaaaaaaga 1500  
gtgtggaaca aaagctacaa aaactttctg atttcttgac tcttgaagga agaaacagta 1560  
aaataaagca ggtggacagc gtactgaagc atgtgaagaa gcatctgccc aaagcacatg 1620  
tgaaggagct tatcagttgg ctctgtgggtc aggaattcga attagaaaaa atggagtcca 1680  
tatgccaggc tcgagcaaag gagcttgaag actccttgca gcagctactg agactccagg 1740  
atgaccatag aaacctgagg aagtggttga ctaatcaaga agagaaatgg aaaggaacgg 1800  
aagaaccagg ggagaaaact gagctgttct gccaaagcttt agctagaaag agggaaacagt 1860  
ttgaatctgt ggcccaattg aacaactctt tgaaggaata tgggtttact gaagaagaag 1920  
aaataataat ggaagcaaca tgtttgatgg atagatacca gacattactg agacaactaa 1980  
gtgaaatcga ggaagaggat aagttactac ccacagagga ccagagcttt aatgatcttg 2040

cacatggtgt aattcattgg ataaaagaga ttaaagagtc ctttatggtt ttgaattcat 2100  
ccgaaggcaa aatgccactt gaggaagaa tccaaaaaat caaggaaatc attttgctga 2160  
agcctgaagg ggatgccaga atagagacca tcacgaagca ggctgagagc agcgaggccc 2220  
cgctggttca gaagaccctc actgacatca gcaaccagtg ggacaacaca ctccatttag 2280  
ctagcaccta cctaagccat caagaaaagc ttctactaga aggagagaaa tatttataaaa 2340  
gtaaggagga tctgagatta atgctcatag 2370

<210> 1421

<211> 2117

<212> DNA

<213> Homo sapiens

<400> 1421

aagacccggg atccacggga ggcggcggcc gcagcctggg attccccagg gacccccccg 60  
gagccgccgc gtctcccatg gacttgcccg gggactccag gtgagagcgt acccgggcgg 120  
cccgctgtc ttgaccccg gagatgggga tcctggcgac cgtgccggga aactacagag 180  
ccagcgacag gttcgggcga ccgtcctctg cttctttcac cctccagccc gcctggccag 240  
ccgcgtctgt gccgccagcc tctgactcga gcattatggg gagccaggag cccgaaacgg 300  
ccgaggctgc agtcccgagg ggcctctct cccctggaaa aggcctctcg gcgggtcctg 360  
gccgtggtgc tagaagatgt catggctgtt cacatggtcc ccgtggtgcc ctcaaagcag 420  
acctccatac cacagcacca cagctaccat caggatcctg tccacaggca gccgcctgcc 480  
tcgccacccc ggcaggcccg gtggtcctcg caggccaggt gagcatggca ggatgggggt 540  
aagccgaggg ccagctgag ccattttaat cttcctgttc cctcgctagg cctcccgacc 600  
ctctgtgttt gtgtcgcgag cccttgagcc gcatccaccg gacctcttc accctgaggc 660  
ggcgatcaag gacaaccctt ggcccagagg agggcccttc acaaaaggtg gaccgggccc 720  
cccagcccac cctggtggtg atgctggaag acatcgccag tcctagacc cccgctgagg 780  
gcttcattga tgagaccccc aacttcatca tcccagcaca aagagctgag cccatgagga 840  
tagttcgcca gccaacgcct ccacctgggg acctagaacc cccattccag ccatctgctc 900

tgctgcaga ccctctggag agcccaccaa cagccccaga tcctgctctg gagtcccat 960  
ccacccacc accgtccage cttttacgcc cccgcctcag tccctggggc ttggccccgc 1020  
tcttccgttc cgtccgctcc aagctggaga gctttgctga catcttctc acgccaaca 1080  
aaaccccaca gccccaccc ccgtcccccc caatgaagct ggagttgaag atcgccatct 1140  
cagaggccga gcagtctggg gctgctgagg gcactgcgtc tgtcagcccc cggcccccaa 1200  
tccgccagtg gcgaactcag gaccacaata cccagcact tctccctaag ccctctctgg 1260  
gccgaagcta ctctgcct gatctggggc cccctggccc aggtacctgc acctggccac 1320  
ctgctccacc ccaaccaagc cgaccacggc cgcggcggca cactgtgggt ggtggggaaa 1380  
tggcccgagc cccgccacc cctcgccct gtctccgaa agaggtcttc cctctcgag 1440  
gagtgggagc ctcccttct ctaccacat cttgctcgtc cacggcatcc acttcttct 1500  
ccggaccagc agaaccagg gaaggagcca agagcctcaa aggaccaggt gctttcagaa 1560  
cctgagacca agaccatggg aaaggtttct cgattcagaa tacgcagaac accagccgt 1620  
cctcagctaa accttacacc aatgggactg cctcgaccaa tcaggttgaa caagaaggag 1680  
ttcagcttgg aagaaattta caccaacaag aattaccaat caccacaac caggaggacc 1740  
tttgagacca tctttgagga accccgggag cgcaatggga ctctgatttt caccagctca 1800  
aggaagctcc ggcgggctgt ggaatttcgg gacagcagcc ttctcgatc acgaagaccg 1860  
tcccgtgggg tccgggctgc agggggcagg actgttcctc ccaatgtggc cccagccct 1920  
gatgtgggcc cctgctcca gcagcggtg gaggagctag atgccttgct cctggaggaa 1980  
gaaacagtag atcgggagca gcccactgg acctaggtgc cccatctgtt ggtcatccat 2040  
cctgaaggga caggaaacct cccaggcagt tatttttttt tctctatatt tctagtaaag 2100  
ttttcgatat gtttctg 2117

<210> 1422

<211> 3665

<212> DNA

<213> Homo sapiens

<400> 1422

aaccgcagtc gcggggtctg ggagccctct attggagatt ctgcctcccc tgggacagat 60  
ggcttcttga gcacactccc acgatgggtg gctgctctgg gtattcatcc atggggttct 120  
tccgcggtga agccagcttg tcgtgctgtc ccccttgtca atgaagccat catggttctg 180  
gtcaatcatg ttgaaagcct ccttaaactc ctggatgtgg aactgggtcaa acatcacgaa 240  
gacattggat gtggccccct gtgctgtggt cgcttcttgg tcttggcttt ggtccacttg 300  
ctgaacattt tggcttcagt aagcagtacc ttgaagagaa attggagagg gagtcaattc 360  
ctaggatagc agagagatgg acaacagaca gaatgtcacc ccagctctga tctttgccat 420  
cacagttgct acaatcggct ctttccagtt tggtacaac actgggggtca tcaatgctcc 480  
tgagacgata ataaaggaat ttatcaataa aactttgacg gacaaggcaa atgccccctc 540  
ctctgagggtg ctgctcacga atctctggtc cttgtctgtg gccatatatt ccgtcggggg 600  
tatgatcggc tccttttccg tcggactctt tgttaaccgc tttggcaggc gcaattcaat 660  
gctgattgtc aacctgttgg ctgccactgg tggtgcctt atgggactgt gtaaaatagc 720  
tgagtcagtt gaaatgctga tcctgggccc cttggttatt ggcctcttct gcggactctg 780  
cacaggtttt gtgccatgt acattggaga gatctgcct actgccctga ggggtgcctt 840  
tggcactctc aaccagctgg gcatagtatt tggaattctg gtggcccaga tctttggtct 900  
ggaactcatc cttgggtctg aagagctatg gccggtgcta ttaggcttta ccatccttcc 960  
agctatcctg caaagtgcag cccttccatg ttgccctgaa agtcccagat ttttgcctat 1020  
taacagaaaa aaagaggaga atgctacgcg gatcctccag cggttgtggg gcaccagga 1080  
tgtatcccaa gacatccagg agatgaaaga tgagagtgcaggatgtcac aagaaaagca 1140  
agtcaccgtg ctggagctct ttagagtgtc cagctaccga cagcccatca tcatttccat 1200  
tgtgtccag ctctctcagc agctctctgg gatcaatgct gtgttctatt actcaacagg 1260  
aatcttcaag gatgcaggtg ttcaacagcc catctatgcc accatcagcg cgggtgtggt 1320  
taatactatc ttcactttac tttctctatt tctggtggaa agggcaggaa gaaggactct 1380  
gcatatgata ggccttggag ggatggcttt ttgttccacg ctcatgactg tttctttgtt 1440  
attaaagaat cactataatg ggatgagctt tgtctgtatt ggggctatct tgggtcttgt 1500  
ggcctgtttt gaaattggac caggcccat tccctggttt attgtggccg aactcttcag 1560  
ccaggggccc cgcccagctg cgatggcagt ggccggctgc tccaactgga cctccaactt 1620  
cctagtcgga ttgctcttcc cctctgtgc ttactattta ggagcctacg tttttattat 1680  
cttcaccggc ttctcatta ctttctggc ctttacctt ttcaaagtcc ctgagaccg 1740

tggcaggact tttgaggata tcacacgggc ctttgaaggg caggcacacg gtgcagatag 1800  
atctggaaag gacggcgta tggggatgaa cagcatcgag cctgctaagg agaccaccac 1860  
caatgtctaa gtcgtgcctc cttccacctc cctcccggca tgggaaagcc acctctccct 1920  
caacaaggga gagacctcat caggatgaac ccaggacgct tctgaatgct gctacttgat 1980  
ttcttttctca tcccacgcac tccatgagca ccccaaggct gcagtttggt ggatcttcaa 2040  
tggtctttta aattttatct cctggacatc ctcttctgct taggagagac cgagtgaacc 2100  
taccttcatt tcaggaggga ttggccgctt ggcacatgac aactttgcca gcttttctc 2160  
ccttgggttc tgatattgcc acactagggg atataggaga ggaaaagtaa ggtgcagttg 2220  
ccccaacctc agacttacca ggaagcagat acatgtgagt gtggaaggca gagggggttt 2280  
atgtaagagc accttctca cttccataca gctctacgcg gcaaattaac ttgagtttta 2340  
tttatcttat cctctgggtt aattacataa atatttatct ttaagtgtta attttgccaa 2400  
ataataacaa cagaaggaaa ttgagattag agggaggtgt ttaaagagag gttatagagt 2460  
aaaagatttg atgctggaga ggttaagggt caataagaat tcagggagaa atgttggtca 2520  
ttattggagg gtaaattgat tggcgcctga ggtctgtaca ttacctctta acaatttctg 2580  
tccttcagat gaaaactctt tgatttctca gaaaagttgt atgcctattt aataaagcta 2640  
ctcatttctt ttggaacttt atctttaaga taatagttaa catgtagtag tacttgaaat 2700  
ctaggattat taactaatat gggcattgta gttaatggcg gttgatgggt tctaattttg 2760  
gatggagtcc agggaagaga aagtgatttc tagaaagcct gttccctca ctggacgaaa 2820  
taactccttg tagtagtctc attacttttg aagtaatccc gccacctatc tagtgggaga 2880  
gccatccaaa tgagaaacct aaaataattg gttcttggta gagattcatt atttctccac 2940  
tttgttcttt aggagatttt aggtgttgat tttctgtttt attttaactc atacctttaa 3000  
aggaattccc caaagaatgt ttatagcaaa cttggaattt gtaacctcag ctctgggaga 3060  
ggattttttt ctgagcgatt attatctaaa gtgtgttgtt gctttaggct cacggcacgc 3120  
ttgcgtatgt ctgttaccat gtcactgtgg tcctatgccg aatgccctca ggggacttga 3180  
atctttccaa taaaccaggt ttagacagta tgagtcaatg tgcagtgcag cccacacttg 3240  
agaggatgaa tgtatgtgca ctgtcacttt gctctgggtg gaagtatgtt attgttgact 3300  
tattttctct gtgtttgttc ctacagcccc tttttcatat gttgctcagt ctccctttcc 3360  
cttcttggtg cttacacatc tcagaccctt tagccaaacc cttgccagtg acagtatttt 3420  
ggttctcagt tctcactgtt ccctctgctc ctggagcctt tgaataaaaa tgcacgtagc 3480

tatggagtgg ggttttagctg gaaaggtggc cttccaactt cactgcaact tctggctcct 3540  
cagtttggca gtaaggcagg gaagttgttt tcctatttct cactgagaag attgtgaata 3600  
tttccatatg gattttccat tattgtttgt ttgattcttt gttttaaaat aaaaattctg 3660  
aatgt 3665

<210> 1423

<211> 5241

<212> DNA

<213> Homo sapiens

<400> 1423

acagtgcccg cccgacgggc agcgagcagc agggagtctc cccgaggccc cgccccgcga 60  
gggcgcccag cctccctggg ccttgagtca gaagctgcca tcagtcatgc tcttaaacgg 120  
ggactgccc a gagagcctga agaaggaggc ggcggcggcc gagccacca gggaaaatgg 180  
gcttgacgag gccggcccgg gagatgagac caccggccag gaagtcattg tcattcagga 240  
cacgggcttt tctgtgaaga tctcgcgcc tgggatcgag cccttctccc tgcaggtgtc 300  
ccccaggag atggtgcagg agattcacca ggtgctcatg gaccgggagg acacgtgtca 360  
ccgtacctgc ttctcactgc acctggatgg caacgtgctg gaccacttct cggagctgcg 420  
cagcgtcgag gggctgcagg agggctctgt gctgctgtg gtggaagagc cgtacacgg 480  
gcgtgaggcc cgcattccag tgcgccatgt ccgagacctg ctcaagagcc tggacccatc 540  
cgatgccttc aacgggggtt actgcaactc cttgtccttc ctgagtgtct tcaccgacgg 600  
cgacctggga gacagcggga agcggaagaa gggcttgag atggaccca tcgactgcac 660  
accacccgag tacatcctgc caggagaccg ggagcggcca ctgtgtcccc tgcagcccca 720  
aaaccgtgac tggaagccct tgcagtgcct gaaagtactc accacgagcg gatggaacct 780  
gccccgggg aaccggaaga tgcacgggga cctcatgtac ctgtttgtga tcacagccga 840  
ggaccggcaa gtcagcatca ccgcgtccac acggggcttt tacctgaatc agtccacagc 900  
ttatcacttc aacccaagc ccgccagccc ccgcttccta agccattccc tagtggagct 960  
gctcaaccag atcagcccga ccttcaagaa gaacttcgct gtgctgcaga agaaaagggt 1020

ccagcgccac ccgttcgaga ggatcgccac cccattccag gtgtacagct ggacagcccc 1080  
ccaggcggag catgccatgg attgcgtgcg tgcagaggac gcctacacct cgaggctggg 1140  
ctatgaggag cacattcctg gacagacccg agactggaat gaggagctgc agacgacgag 1200  
ggagctgcct cgcaagaacc tgcctgagcg gctgctccga gaaagggcca tattcaaggt 1260  
gcacagcgac ttcaccgcgg cagccaccag gggcgccatg gccgtcattg acggcaacgt 1320  
gatggccatc aaccccagcg aggagaccaa gatgcagatg ttcattctgga acaacatctt 1380  
cttcagcctg ggcttcgacg tccgagacca ctacaaggac ttcggggggg acgtggcggc 1440  
ctacgtggcg cccaccaacg acctgaatgg cgtccgcacg tacaacgcgg tggacgtgga 1500  
ggggctgtac acgctgggca cgggtggtggt ggattaccgc ggctaccggg tcacggccca 1560  
gtccatcatc cccggcatcc tggagcggga ccaggagcag agcgtcatct acggctccat 1620  
cgacttcggc aagaccgtgg tgtcacaccc gcggtacctg gagctgctgg agcgcacgag 1680  
tcggccccctc aagatcctgc ggcaccaggt gctcaacgac cgtgacgagg aggtggagct 1740  
ctgctcctcg gtcgagtgca agggcatcat tggcaacgac gggcgccact acatcctcga 1800  
cctgctgcgc accttcccc cggacctcaa cttcctgccc gtgcctggcg aggagctgcc 1860  
tgaggaatgc gcccgcgcg gcttcccccg cgcccaccgg cacaagctct gctgcctgcg 1920  
ccaggagctg gtggggcct tcgtggagca caggtacctc ctctttatga agctggccgc 1980  
cttgagctg atgcagcaga acgccagcca gctggagacc ccctcctccc tggaaaatgg 2040  
tggtccttcc tccttggagt ccaagtctga ggatcctcca ggacaggagg cgggaagtga 2100  
ggaggagggt agcagcgcca gcggcctggc caaggtgaag gagctggcag agaccatcgc 2160  
cgcagacgac ggcacagacc ctcgagccg ggaggtgatc cgcaacgcgt gcaaggcggt 2220  
cggctccatc agcagcaccg ccttcgacat tcgcttcaat cctgacatct tctcaccagg 2280  
ggttcgtttc cctgagtcct gccaggatga agttcgggac cagaagcagc tgctgaagga 2340  
cgcggtgcc ttctgtctct cctgccagat ccctggcttg gtgaaggact gcatggagca 2400  
cgcggtcctg cccgtggacg gggcaacgct ggagaggtg atgcgccagc ggggcatcaa 2460  
catgcgctac ctgggcaagg tgctggagct ggtgctgcgg agcccggccc gccaccagct 2520  
ggaccacgtc tttaaaatcg gcattggaga actcatcacc cgctcggcca agcacatctt 2580  
caagacgtac ttacaggag tcgagctctc cggcctctca gccgccatca gccacttcct 2640  
gaactgcttc ctgagctcct acccaaacc cgtggccac ctgcccgcg acgagctggt 2700  
ctccaaggag cggaataaga ggaggaaaac cggccccgg gggctgcaga taacacagcc 2760

tgggctgtca tgacccccca ggagctctgg aagaacatct gccaggaggc caagaactac 2820  
tttgacttcg acctcgagtg tgagaccgtg gaccaggctg tggagacctg cggcctgcag 2880  
aagataacgc tcctgcggga gatctcgctg aaaacaggga tccaggtcct gctgaaggag 2940  
tacagcttcg acagtcgcca caagcccgcg ttcaccgagg aggacgtgct caacatcttc 3000  
cccggtgtca agcacgtcaa cccaaggcc tcggatgcct tccatttctt ccagagcggg 3060  
caggccaaag tgcagcaggg ctctctgaag gagggtgtg agctcatcaa tgaggccctg 3120  
aacctgttta acaacgtcta cggagccatg cacgtggaga cctgcgcctg cctgcgcctc 3180  
ctgccccgcc tccactacat catgggcgac tacgcagagg ccctgagtaa ccagcagaag 3240  
gcggtgctga tgagcgagcg ggtgatgggc accgagcacc ccaacaccat ccaggaatac 3300  
atgcacctgg ccctgtactg ctctgccagc agccagctgt ccaccgccct gacgtgtgtg 3360  
taccgcgcc gctacctcat gctgctggtg ttcggggaag accaccccga gatggcgctg 3420  
ctggacaaca acatcgggct ggtgctgcac ggggtgatgg agtacgacct gtcgtgcgc 3480  
ttcctggaga acgcgtggc cgtcagcacc aagtaccacg ggcccaaggc cctcaagggtg 3540  
gccctcagcc accaccttgt cggccgagtc tacgagagca aagctgagtt ccggtcggcc 3600  
ctgcagcacg agaaggaggg ttacaccatc tacaagacgc agctgggcga ggacctgag 3660  
aagaccaagg aaagctccga gtacctcaag tgcctgaccc agcaggccgt ggccctgcag 3720  
cgcacctga gcgagatcta ccgcaacggc tccagcgcca acatcccgc cctcaagtctc 3780  
acggccccc gcatggccag cgtcttggag cagctgaacg tcattaacgg catcctcttc 3840  
attcctctca gccaaaaaga cctggagaat ctgaaagccg aggtggcgcg gcggcaccag 3900  
ctccaggagg ccagcagaaa cagggataga gccgaggagc ccatggctac cgagcccgcg 3960  
ccagcggggg ccccaggaga cctgggctcc cagcccccg ctgccaagga cccttctccg 4020  
agcgtgcagg gatagagagg gagccagacg gacagccagc cagcggcccc gtcaccaggg 4080  
agcccgactg cgggagaagg gggcgagcct gcgggcggaa gaggaagcaa ggccctcttc 4140  
ctccacgtct caccacccc cacccccgtg tcctcctggg agcctggcct gcctgccccg 4200  
cagaagggtg ttttgcgctg gttcaatgaa tagatgatgc agaggcccca ttggagacac 4260  
gtgaatggcg tgtgcggcca tcagttcccg gctggggggc aggtgttgct tcggcccccg 4320  
ccctccggcc ggcgtgtgcg agtgccccc tggtgtgag tggtgacct tcctctcccc 4380  
tgtacatagc ccgagccagt cctgagtggg tgactcctga gtgggtgacg cgcagacggg 4440  
atttctcagg tcatttgtat ggctgacatg atggctgtg ctttggctgc caccaccccc 4500

gggcccagcc tgtctgaaag ttcagggttt aggccgaaaa acccggtggg gaggggtggg 4560  
 gagccggagc tctgtggcgg ggctggaggg ctggggtgca ctttagtttg gggcgggacg 4620  
 ggagccgccg ttgtgactgg cgtggtctgg ctgctgctcc cgaacggagg ggtcggggtt 4680  
 ggcttgctgg gccctcagag cccagtgggt ggctctgact cggctcccta ctccctgcac 4740  
 ccagctgggc gcagccttgg ggcctgcggt ctgaatgtat ccctcccctc agttttaacc 4800  
 tgagctgccg aacgcacagt gggccggggg cgaggctggg ggaagcgggg cccaattacg 4860  
 gatcccggga gttacaggtg ccgacgtgat gtcgcttctc tggtgcccag ctcccttctt 4920  
 ggtctgagac tagctctggg ggtggcgggg gccccacac gctgctcccg ctccaccctg 4980  
 cccgtgctgc tgctctgtgc ctgctgtcag agccctgggt ggggaggatg tggccaccct 5040  
 gagaccgga ggagacgggc gtctgcctgg gtttgcggag agccgcttat gggtgtggtc 5100  
 cgtccagaca ccttgtttca aggggggatgg gcgtgagcgg gcaagcagag catccccacc 5160  
 gctgagcaag aactttttct tgtttttaaa ccatcacgtc ctcatttcac attggaataa 5220  
 agtgagtttt tgaaacctgc g 5241

<210> 1424

<211> 3922

<212> DNA

<213> Homo sapiens

<400> 1424

aacttccat cccccactgc ccggtgccag cgctcggttt cggtgggttc tcccgggtct 60  
 gggctcacgt ctctctgcg cgccttgtgc tcccctatcc cacagatacg caggcttctg 120  
 gagaccctgg gtggacgccg gaggaagaa agaagaggag acgccgaacc acgccgcgga 180  
 ggcggtgagt gagccacgcg tctcaggccg cgctccccc ggggtgcagaa gatcgaccag 240  
 ggctctcggg acgcagggcc tgagagagac atgcgagaca ccgggtcctg cctctcgctt 300  
 aacatccgc ctgccggtgg ccataaagggt gccgacgcgg cggatgtgtc ctctggagcg 360  
 atgggccaca ggcacccagc cgggagcgag gctgctgaga gccctgggggt tacattccca 420  
 gcgggcacga ggaacactgg gtcgtgcacg tttccacttt ctagaaggag gtgggtgata 480

actggattca cttcctttcc tctccagatg cccgatggcc ctggaatgac cgcagcctca 540  
ggaaagcttt accaattcag gcaccagtc aggtgagtga caggcctcgc cgaaggtctc 600  
ccgctcctcc agccccaggg aggagccagg ggcatcgcgc agcccagctc cgcagctggt 660  
cctgcagtct ctctctctct ctctgaaaat ctggcttcaa ggttacttat cttctcactc 720  
atcaaattga aaaaggtagg ggctcacggg cccacgtaaa gggactattg atgaatacat 780  
actcagtga cttgatgaat atattacgaa gagggaaagg ggatgatatg gtaaaagagc 840  
ggtgacatct tgtgctggca aaacagtttt tttttttaa tcctaaaggg ttcgaatgaa 900  
attgacttcg catcaggcag agtgtgtatg ctgcttttgt cttgcaatct ggaaggaaga 960  
atgggattaa cagttacagt cttacaagtt tgccgagtag gaaaaaatag aaatgtaatg 1020  
aaaatcctaa agattattga gaatggttat agaaagggtc aaaagtttat ttaacttgcg 1080  
gagctagttt actgttcccta gtcacaggaa gtcagccttt atctaagatt ctgtgtcact 1140  
tttattcagg tgaaatgtta agaattctgc agttttcctg cctccgagag ctgttaaagt 1200  
aagagctgga tgatgtttgt aaagtgcgcc tggtcataaa taacacatag aagtcattac 1260  
atctaatttc ctaccgtgta ctagcactgg tgaaggacac aggaaagtag tcacagcaca 1320  
tggcaagtgt tgtaatggaa tttagtttgg ttagttttac aagtatgggc agggcacgaa 1380  
gtgcctaaat ctgtcagtgg tagggggaag ggtcaggga ggtatatta taagttgtgg 1440  
ttacctggct gagtcttgga aaagttagtc agatgaatgg gaagtgggag caaaagaaat 1500  
agcattggaa aagagaagca ggatcatgaa acggtgtggc tccttgccggg aactccaagg 1560  
agtttaggtg tgtgaagttg tggtcatttt agcagggtaa tcagaggcca aatcttgcac 1620  
actcttgtag agagttctgt cctgatcctg tatgtagtgt tgggaacca tgggctttat 1680  
tccgaaggta gtcttggggg ttatatgtta aataggctta gtcagggcac caaaagtaaa 1740  
actggaagtt ctgcaatttt tcaggtaaga aataatgatg aaccattgta agacagtgga 1800  
agtgagggtg agactgggtg aatctaggaa atacttgaat gacaaaatag attaggcttt 1860  
ataacgtatt ggatatgtta ggtgaagaag aggtaaaagg ccagaatggc tcctaagttt 1920  
gtggctggtg agcagggtgaa tgctgtacta aaagaatgta aattagggtg gaaaacagat 1980  
ttgggaggtg agatcatgag tcaagttttc cacttatcat atttaagtgt cctatggggc 2040  
atccaaagag tgatcctctg tagagaactg cgtacgtaag ttagggggccc agagtcaaga 2100  
tcttaagtgg aaatacagac ttgggaggtc atggtaaagt taggggtggg aaatcatgac 2160  
agtgggccag gtcacccatg tttgtttaga gggagggtg atgttctcaa tgaaaacctg 2220

agggaaggcc agcatctaac cagtacacag agaaagagag gtccacaagg agacggagaa 2280  
gaatcagaac aggaagaaac tcagaaaagt atgcgggccc tgggagaaaa atggcccaca 2340  
gtgagaaatt ctggacagag tatcataatg actagcattc tttgggtttg ccagttccag 2400  
ttacgcatta ggaaataaat tgtttcttat ataagaaatt cctttctttt ctgaagtacg 2460  
gttacaattt aattgttctc ttatatatta tttttattca tttatatctt gactaatatg 2520  
gtgtgtttta ttctttttat tcagctgtca actttttgag ggtagggacc atgatttatt 2580  
catctttaaa ttgtgaatta tgttggcaca agggatcact aaaatattta ttgaacgact 2640  
gaataattga tagttacttg ttttaagcatc aaaaatataa acttttttta tgatttttgc 2700  
tggaacatt tataaactgc attgtttgtt tttctgcctt ttaaagtgga gcatactgaa 2760  
cataatgtaa tcttccattt gttgggatga ctccattgta tggatatatg ggctgtttac 2820  
cctgcactaa aatgactgca ctgtacttgg tgattcagcc ttatctctcc tctttctttt 2880  
ccttgatgaa gaccagaagg caagattagt atttgtcaga tttttgaaat tctgaggtaa 2940  
tcataacctac atgccagtta tttgtataaa acatatataa tttctcaaca tttcatatga 3000  
tattcacaaa tttagttgaa tggggagaag acaggcacat agaatcaaag ttgaggtcag 3060  
aagtagtctt tctatgcctc aagtgtgtgag tgcatagaca aaaattttaa aatactgggt 3120  
tttatacatt tttaaactta cgttgtctac ttctataaga gttaaacttg tgagttttaa 3180  
ataagataat aggttatttc cacctttttg taagggtgcat aatattttgt catctttata 3240  
aagctggcta tcattaaagt ttttaatgta gtggtagaac tcaattcatt ttttccaaag 3300  
gaatttagaa actggaagac aaatcttcta tatattataa gaataaatat atccataatg 3360  
tacaaagtaa ggtaaacatt gatcttatgc atatccaggg tttagtgtaa atttgtttga 3420  
tccaatttac agcttgaata aagatttaca ataatacaac aattattgat acttgggcag 3480  
gtagattcca tgaaggctgt gatagtagca tattttaact ctgtatctta aggctatatc 3540  
caaatgtata agtcaattgt taaatatatg gagctcttga aatttgacca tttcatgagt 3600  
ttaaagatcc tgaatgtgaa aaaataaaac atgttgtctg cttctttcag actattttgg 3660  
ccaaaatcaa aatgttatga ttacttatat caagaagcag aagctcttct gaaaaatttt 3720  
ccaattcaag ccacaatttc attttatgaa gattctgata gcgaagatga aattgaggat 3780  
ctgacctgtg aaaattaatc tgattagcta cttttgatta tatccaaagc ttgtgggggtt 3840  
taaatttagt gtacaaatgt atcataatta ttttaaacta atttatttgt atataaatta 3900  
ttaataaaat gaaatatattt gt 3922

&lt;210&gt; 1425

&lt;211&gt; 3676

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 1425

agaagctgcg	ctgaggctgc	cccacagggc	gcaggccccg	accctcagcg	tccaccgtct	60
gctgcctaca	tccgcccgcc	cggcgctccga	ccccttcagc	ggcgacgggc	ggagctggag	120
ccccgggcct	gggcgccagg	tgggctcctg	ggaggggtgat	gaagcaggcc	ctggtggacg	180
ataccgagga	tgtgtccctg	gactttggaa	acgaggagga	gctggccttt	aggaaagcca	240
agatcaggaa	cacgcattcc	ccgatgacat	gagacacctg	ccccgtgggc	tgcgtgtgag	300
cttggagctc	agtgactggt	ggtggaaaaa	cccaaccttt	acctttaggg	aactggccgt	360
catctctgct	aggcgggaag	gcagtgactg	ctgtcacgtt	tcacttcaaa	gatgaccgtg	420
tttcaagag	ggcaagtgat	atttggagtc	aagtggcggg	aaagtactgg	attcttcgaa	480
ggggaggaaa	aaaaacagtg	tcagcatgac	tgtctgggga	ctgctgacct	aatgatgtgt	540
ccccagggtc	acagcctgag	tttctgcgtc	atatgcaccg	gggagaacat	tccattgagc	600
cacgctaaca	ccccagcaa	agtctgaagt	ggtaaaggga	gttcagtgac	catccgctta	660
gctcttggag	tgagggcgcc	ttctgggtcc	tttcctagac	acccttggc	cacctttttc	720
cacctgtttt	tccgagtgag	tgccatcgtc	acctacgtga	gctgcgactg	gttcagcaag	780
agctttgtgg	gctgttttgt	catggtgctg	ctcctcctgt	ccctggactt	ctggtctgtg	840
aagaatgtaa	ccggaagact	cctggtgggc	cttcgatggt	ggaaccagat	agatgaagat	900
gggaagagcc	actggatctt	tgaagccagg	aaggtctctc	cgaatagcat	tgctgccaca	960
gaagctgaag	cacgaatctt	ctggctgggc	ctcataatct	gccccatgat	atggattgtg	1020
ttttttttta	gcaccttatt	ttccttgaag	ctaaagtggc	tggctctggt	ggttgctggg	1080
atctctctcc	aagctgcaaa	cctgtatggc	tacatccttt	gtaagatggg	aggcaacagt	1140
gacattggca	aggtcacagc	cagtttcctg	tcccagacag	tgttccagac	ggcctgcccc	1200
ggtgactttc	agaagcctgg	cctcgagggg	ctggagattc	accagcatta	ggaactgatg	1260

aggttctctt cttttgactg atggagatta caaaactctt ggattcctgg aaaacaagac 1320  
gacaggcata gagtgctaag ggcttgtcta ccccttgaca gccctgtcct gtgctgggga 1380  
gggctgtgtt ttgacagggg tggaatcctc tggctagtgc cataaaaaga cctgtgtctg 1440  
tgatgccctg agtctttgaa agtgaccgga atacctcaca ctacccatct tgctcataac 1500  
cagtggctgc ggccttcctc ggaccatcta tagatggagg attctgggaa tgctgtttcc 1560  
ttacccttga catcattctt ctaggcaagt aaaaccacag cacaaactca gagaccacag 1620  
ctttaacaaa cactgacacc tctgccctaa ctctggggcc tctgatggct gccactggct 1680  
gaatgtggcc tgcacgtggg tttggctctg ctcaacaaag tttttatatt tatTTTTat 1740  
ttttttgaga cacggtctca cgctgttgcc caggctggag tgcagtggcg cgatctcgcc 1800  
ttactgcagc ctccgcctcc caggttcaag cgattctcct gcctcagcct cctgagtagc 1860  
tgggactaca ggcatgcgcc accacacccg gctaattttc atatttttag tagagacagt 1920  
gtttctccat gttagccagg ctggtcttga actcctgacc agcctcaagt gatctgcctg 1980  
cctccttcac ccaaagtgtt gggattccag gtgtgagcca ctgcacctgg cttttttttt 2040  
tttatcagtt acttttaaaa atgaattact ttatcccttt attgggatgt atttcctaag 2100  
ccataaatTT caccctcacc atgtttttta aactatgaat taattcaca tactcacaca 2160  
ttgagagatt tctcatggac tcttggttc ctcggctatg ggggccactc tgtggtcatc 2220  
acagacccca ccaccacct gtccttcac acccctggct cctttatgtt gcttcctgcc 2280  
ccacaggcat ctgcatttag tactcatgga aatacttact ctgaattata cttctgtagg 2340  
ctaactggc tggggaatct ggggcgtcaa tgaaaaaaga ctggcctttg tcacaattct 2400  
taccttaaaa aagaaacaaa cggaagacaa ttcagtccaa gaggaaaaca gaatggccac 2460  
aagatcttgg ggctctttcc gtgctggtga caatgggaag atcttgagcc cgcttcactc 2520  
gtaatgaaga acaaagtaga aaagaccagt ggggtctcag ggaccttct tccagcaggg 2580  
tccccagcca gcatttcagc gtggctaaat aatcagggtg tgtacagaaa atgcaggttc 2640  
cagggcccta cagagaactg attcagcagc ttccacatgg gcccaggagt ctgcatttta 2700  
agagattagc ttttgagtga aaggatcatg aatgcacatg gttaaaaaaa gtacagaatg 2760  
caaaaggata tggcataaaa ggccaagtcc gaaaagggt actagtgttc taggtgtctt 2820  
tccagaaaaga ttatgcgcac ataaatgtgc acacttgcac gtgtgcgcac acacatacac 2880  
acactctcat atacctaaaa tacgaatggg agcacatgac acacacattc tgcctgtctg 2940  
tttgtctgtg tataatttta tcttcaggt catctgtgct ggtgtctatc agtctgctag 3000

tctttcccg ccatgtggcc attgttccag tcccctccta tgcacacca gttttctcta 3060  
 ggaccatgtt atcccagagc caggtggaca ggacacaagg ggctaggggt caatgggggt 3120  
 gttctcgctt ccagtctgcc ctgccagccc ccagtcgtgg gtggacctgc catcagcttg 3180  
 ctctgcccac tccccaggcc tgagctgctg gcgaaacagg caagtactg cactgcccac 3240  
 ggccggtcac cagcctcagg tgaaccctag gaggggttcc tacctagcac tcatcatttc 3300  
 ctcaacttca ctactgtgtc gccctgtggg acaggggaagt ccaagtcggg gaagaagcct 3360  
 gtggggaggg gttggtggga gatggggagc ccatatggcc cagtgagtca ggaagatagg 3420  
 gtccagaggc agggaaacata aggccaattc gcacttgagc cataacagga aatgtcctct 3480  
 ccataggacg tatgccgtaa atgactttgt aactttactt catccttttc gtttatatag 3540  
 ggcgtaacct aagtagaggg tatttaaaaca caaaaactct gtaatggggc ctttgagccc 3600  
 ctattctcag gcccgttctc ctcccacacc gtggagttga ctttcatttt caataaatcc 3660  
 cttccttctt tccttt 3676

<210> 1426

<211> 3765

<212> DNA

<213> Homo sapiens

<400> 1426

attttggcat tgttcttcga gcagcgtgca ttttggtaga cactagccgt atgtggctat 60  
 tgagcactta aatgtggct agtgtaacta aagaactgca ttttaaattt tatttagtct 120  
 tagttaattt aaaatttaaa taaaatggca ttatgtggct catggcttac tatattgcac 180  
 agcatggatc ttgaacatcg tttccacat taactttccc tttctaacat ttcgaggaaa 240  
 cagttttgtg agactgaaat ctaagtcatt cttctcaagc ctgggtctgt ggaaaggcct 300  
 atgctggctg ttacctttt tcccttaaat agtttttaag gtcccgagac tagatgagat 360  
 taccaagtct tctctcttac agagcagtca gtaaggcaag aaaacacatc ttacagatcc 420  
 ataccagga ctggaatcca aaattgtcag atgcattttt aggtgaattg gctgaaaaat 480  
 gtgttgggac ctccatctcc gaagcagcat ccctcagctt ttgaaccaca aagacctcga 540

catcttctgg ctactgtgga gccgatatca aggccctgtg cactgaagcc gccctgattg 600  
cactgcggag gcgttatccc cagatctatg ctagcagtca taaactgcag ctggatgttt 660  
cctcaatagt gcttagtgcc caagatTTTT accatgcaat gcagaatatac gtgcctgctt 720  
cccaacgtgc tgtgatgtct tcagggcattg cactatcccc catcataaga cactgctgg 780  
aaagaagctt caacaacata ctagcagtct tgcaaaaagt gtttcctcat gctgaaatta 840  
gccagagtga caaaaaagaa gatataaaaa ctttaatttt agaggatagt gaagatgaaa 900  
atgctttatc aatttttgag accaattgtc actcaggatc accaaagaaa cagtcatcat 960  
ctgctgctat acataaacc taccttcatt ttacaatgtc accatatcat cagccaacct 1020  
cttacaggcc acgcttattg ctctctggag aacggggctc aggtcaaact tctcaccttg 1080  
ctccagcact tttgcacact ctagaagat tctctgtgca tagactagat ctcccagcac 1140  
tttattcagt tagtgccaaa acacctgagg aatcatgtgc acagacaaaa ttactgcagg 1200  
ttgtatgcaa gtaaaagaat tactcagtac catttaaaat aaatacaaat gatttagtag 1260  
aaaaatataa atcaacaaaa ttgacccag agaagagaga atctaataca tcaactgtgga 1320  
agaagaaatt cagcaagtat cttaaaacca ctaaacatag atggtttcac agcccaaat 1380  
aaactctaca tgggcagtgg aactataaaa gtactggaaa aattcacaag aactttggaa 1440  
aaaaataatc cttggatttc caagatccag gataggaggg tacgtgtttg cagaaaaggt 1500  
caaaatttga gagtcctgaa ggagttgtac tgtacaactg ttctggattg gtggatatgc 1560  
aaatattaag gaagggaagg agcaaatatt acttttgata tttttcgtga agctcgaaga 1620  
acagtaccta gtattgttta catgcctcac attggggatt ggtgggaagc tgtcagtga 1680  
actgtgagag caacttttct gacattgcta caagatatac catcattttc acctatattt 1740  
ttattgtcta cctctgaaac catgtacagt gaactgcctg aagagggtta atgtatcttt 1800  
agaatacagt atgaagaggt cttgtatatt caaaggccta ttgaagaaga cagaagaaaa 1860  
ttttttcaag aattgattct caatcaggca tcaatggctc caccacgaag gaaacatgct 1920  
gctctttgtg ctatggaagt gcttcctctt gcactacctt ctccacctcg tcaattatca 1980  
gaatcagaaa aaagtccaat ggaggaccag gaggaaaata ctttaagaga gttgcggttg 2040  
tttctcaggg atgtaaccaa gaggtggcc acagataaac gctttaacat cttcagcaaa 2100  
ccggtggata ttgaagaggt ttcagattat cttgaagtaa tcaaggaacc aatggactta 2160  
tcaacagtaa taactaaaat tgataaacat aattacctga ctgcaaagga tttcctgaaa 2220  
gatattgacc tcatctgtag caatgcttta gagtataatc cagataagga cccaggagat 2280

aaaataatta ggcacagggc ttgtaccctg aaggacactg cacatgctat cattgcagct 2340  
 gaattagatc cagaatttaa taaactttgt gaggaaatta aggaagcaag aataaaaaga 2400  
 ggcttatcag taacatcaga acaataaat cctcatagta ctggagctcg gaagacagaa 2460  
 actagagtcg aagaggcatt tcggcacaaa caaagaaatc caatggatgt gtggcacaaac 2520  
 tctgcaaata aatgtgcatt tcgggttcgg agaaaatcaa ggcggagatc acagtggggt 2580  
 aaaggaatta ttaagaaaag gaaagttaat aatttaaaaa aagatgaaga agacacaaaa 2640  
 tttgcagact atgagaacca tacggaggac aggaaattat tagagaatgg agagtttgag 2700  
 gtaagcactg actgccatga ggaaaatgga gaagagactg gagacttate tatgaccaat 2760  
 gatgaatcat cctgtgacat catggacttg gaccaggggc agaggcttaa caatggagca 2820  
 ggcacaaaag agaactttgc atctactgag gaggaaagtt caaatgaatc tctactggtc 2880  
 aacagcagca gttccttaaa cccggagcag acctccagga aagagacttt ccttaaagga 2940  
 aattgtctaa atggtgaggc ttccactgac agttttgaag gaataccagt tctggaatgt 3000  
 cagaatggca agcttgaagt agtttctttc tgtgatagtg gagataaatg tagttctgaa 3060  
 caaaagattc ttctggagga ccagtcaaaa gaaaaaccag aaacttcgac tgaaaatcat 3120  
 ggagatgac ttgagaaact agaggcactg gaatgtagca ataatgagaa gttagaacct 3180  
 ggctctgatg tggagggttaa agatgcagaa ctggataaag aaggtgcttc taaagtaaag 3240  
 aaataccgta aattaatttt agagcaggca aaaacgacaa gcctggaact ggttccagaa 3300  
 gagccatctg agcctgtgcc tcctcttata gttgatcgtg agagattgaa gaaattgctt 3360  
 gatttggttg tggataaaag caacaatctg gcagttgatc agcttgagag attatattct 3420  
 cttcttagtc agtgtatcta ccgtcatcgt aaagattatg acaaatcaca acttgtagag 3480  
 gagatggaaa gaacagttca tatgtttgag acattcctat gaacttttca agatgagtgg 3540  
 tttatcctct ccaatctgct cctcacagag cagtcttctg agccattcaa tttcaaattg 3600  
 caccaattat gtgcagagcc ttggtgtaaa gtgctctctc actcattctt tctctctgtt 3660  
 gaatttggtg ctattgtctc aggtacctga aaccaaccag cctacaagaa ccaaacagaa 3720  
 cttcagaaac atgttgtatt ttccacaaat aaaaaataca acccc 3765

&lt;210&gt; 1427

&lt;211&gt; 3097

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 1427

tatgatatgg	acataatcac	gtctttgtgt	atatggacat	gttcacgtgt	ttgtgtgtac	60
ggacatattc	acgcgtttgt	gatacggcca	tattcacgcg	tttgtgtgat	acggccatat	120
tcacgcgttt	gtgtgatacg	gacattcacg	cgtttgtgtg	taggacatat	tcacatattt	180
gtgtgtatgg	acatattcac	gcgtttgtga	tacagacata	ttcacgcatt	tgtgtgtaca	240
gacattcacg	cgtttgtgtg	atacggatat	attcacgcat	ttgtgataca	gacatattca	300
cgcgtttgtg	tgatacggcc	atattcacgt	gtttgtgtga	tacggacatt	cacgcgtttg	360
tgtgtaggac	atattcacgc	gtttgtgtgt	acagacatat	tcacagcctc	gaaagagtgg	420
aatcctgaac	acgtggcttt	gtgcattctc	catttcaggt	tcaacgactt	tagtcatttc	480
cttactaatt	tttaaaatga	ctttaatcat	ttaggtttaa	atgactttag	tcatttcctt	540
actaattttt	taacacccga	aattttaatg	actgcttggt	tgctgtcatt	agaatgtact	600
acatttaact	aacttattta	agccataata	ttgtatatatt	agagagtttc	cagttttatt	660
ttaataaact	aggctgtggg	gaattttttc	acgtatgctc	tgtgtaaata	tctgattatt	720
catttaataa	aatgtcccag	aagtgagtat	tgaattaaag	ggcatacaca	gtttaagcct	780
gtgatatgtg	ttataaaatt	ggcctccagg	agagcagtgt	ctgccccagg	gtcagtgcca	840
tggtggtgag	tgaagctccc	ccacccacag	aggccctgag	cagggagccg	tccggtgacc	900
caagcaggct	ggtcttgctg	gccccttctt	tgcccagggc	cttgagagag	ggctccttga	960
gtgcctggca	ggccactctg	ctggctgaca	gctgtgtggg	aagggcccag	ggccctgtct	1020
gcccagccgg	ctgagcacag	acggtcttgc	ctccaagggg	tttgatttcc	tcagcagagc	1080
cgtggaaggt	gcagtgatgg	tgagaaactg	cccgtcacac	agtgaaaagc	ctggcgccgt	1140
gacggtgaga	aactgcccgt	cacacagtga	aaggcctggc	gcggtgatgg	tgagaaactt	1200
cccggcacac	agtgaaaagc	ctggtgcagt	tacgtgcttg	ttgggtggat	ttggagggaa	1260
gaaaagctgc	cggaagctca	acccatggcc	gtccttgctt	ggagatgcac	caaatccctc	1320
ctgggtggcg	gcatcactgg	ggactgggac	gcagccgtga	gtgggacaga	ctggtcagca	1380
ggcagcagct	tgtcctggca	tgtgaccctt	ggcacaggga	gagactcccg	ggagaccctc	1440
agctctgagc	agtcaggagc	tctggcgcag	gtcacctggc	gggatgtgga	gcatctgggc	1500

ctgaaggctct tggcgcttcc aaaagctccg gccgcggcgt ctcttgagtt gtggctcgtc 1560  
ccctcccact gggcaggact gggggttcct ggggtgttca gtttttagtc tgagctctgc 1620  
tctacctttc ttctgtccgt ttagtttgct tggcataaat tccatattac tttgccaatc 1680  
ttcgatttat tgacggggaa gcctgtcctg gagccacctt cttccacgcg tcttgtaaac 1740  
ttgggggccc gcaggagacc ctcaactctc tgcggtcaca acacattgaa gtggacaagt 1800  
gatgagtcct gtgcagcggg ggctctgggt ggggggcagg gagaagggtt ttctccagaa 1860  
aggtgggtccc tgtgggctct gcccaccttc aactcccctt gggctctggcc caggaatgcc 1920  
cagtccggca gctgtagccg tagccattag tgactgggcc tcatgaggag gagtggaaat 1980  
ggggccagcc cggccatctg ggggtgctgt ttctttggaa acttgagttg gctgcagctc 2040  
tgaggagagt ggaacgttct gggccactga ggagggcac cctcctgtgt gaacggcatt 2100  
ttcttcttgg ctccctctga aggtgtgtgc agccacagca tttccagggc tgctgaggct 2160  
gcctgtctgt ctttccctc tggtgtgatg tttagaaaga caaatgagtg ctggggcctg 2220  
gggggtggcc ctggggtcag ggaggtgctg gagctgctcc gggaagcgac ccaggaatgc 2280  
agaccaaggg cctgctgggt attccggggc ggcagcctgg tgctggtcgg gtgggaagcg 2340  
tgagtgggga gaggagtccg agatgccacc tttctgatct ggggagctgg ggccttcccc 2400  
aacaggagaa acatgagaaa gattcgactt ggcagtgcgg ggagggaagt tagtactggt 2460  
cgtggtgacc tgtggcccgc tcagaacatg atggtttcat ggggtgtagct gtcccctcag 2520  
agagcgctg caggccgggc acctgctccg aaggcgtccc cttcagttgg cgagcccttg 2580  
tggggcgagg gctgccccga gttaatattca ccacgagccc ctcaaactct tgggccactg 2640  
ggaagtttcc aggtttctct tateccaagg cgtgaggaag aagtttgtga tctcagtcgt 2700  
ctgtcttggg tcccagacct ccctgtgcag cttttcctaa gaacgccagg gcgtttgtat 2760  
ttcctgcaa tgatggcggc ttttcatgag ccacgggggc cgtcttcccc tgagtacgtc 2820  
ggggcctcct gcgttttagtc cgaaaacctc acgtctgcac gtcttgccgt gagctgctcg 2880  
gagccgtggg aagtcaggaa ttgagggatg gtttcatgtt agaagtctgt taatgtaact 2940  
catcacatca acatgaaaaa attgatcccc ttaaagtcag aaaaacaaaa attcacattc 3000  
atccatgaca aaaacttaac atactggaat tgaaagattt ttttaacatg ataaaaagta 3060  
tcctagcctg ggcaacatgt cgaaacccta tctctac 3097

&lt;210&gt; 1428

&lt;211&gt; 4001

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 1428

acttaacaac cgaagtaacc cgcaatgcgg aagggcgagg ggattgagag tcaccgagtt	60
tcccgcgcgg cttgagtcac ggcctagaaa gagagatgtt ggggttccca ggaccaggac	120
agaggtggta gtgaactctc atgggcatcc agagaaggtc aggccccctg ctgacaggcc	180
tatctgtggg gctactgctg ctcttcagct ggggtgaccct tgtccagcca acctctctct	240
cagctctggg ccaccaccct cacttgtgcc agaccaccgc ggatgtccat ggccgtcact	300
accctggttt cttttgccct cgtctgtctg attctccaga ggaagcctac tgctgccacc	360
tgcaggctgc aggggggctc tgctgcaccc gggctgaatt tgaggccctg taccaagtca	420
atctgtccgc tcttcgccc ccgcccaccc tcagggggccc agggccgctc ctagtgctgg	480
gcctctacaa cctactgggt gtgaccctga tgaccgtaga cctcgtgcac ttctgctgcg	540
gtcggggccg gagtctgggc tggagccacc gcaggcctcc ctctgggtcc tccgccgca	600
gtccctgca ggtctctgcg gggacagctt aggtgcgccc ggagcttgcc tgcacctgcg	660
atccagagcc aagcgccccg cccctgcccc ggcgcgctcc ctccttagcc ctgccccct	720
ctgacccac ctccgacgca agagtggggc ggggcagctg ccggtggcgt cccgaaccca	780
gactcgcccc gccccagaga ctgcgcctgc gcgggcacga gacaacctct ccgcgatgac	840
tgccagctca gtggagcagc tgcggaagga gggcaatgag ctgttcaa atgtggagacta	900
cgggggcgcc ctggcgccct acactcaggc cctgggtctg gacgcgacgc cccaggacca	960
ggccgttctg caccggaacc gggccgcctg ccacctcaag ctggaagatt acgacaaagc	1020
agaaacagag gcatccaaag ccattgaaaa ggatggtggg gatgtcaaag cactctaccg	1080
gcggagccaa gccctagaga agctgggccc cctggaccag gctgtccttg acctgcagag	1140
atgtgtgagc ttggagccca agaacaaagt tttccaggag gccttgcgga acatcggggg	1200
ccagattcag gagaagggtc gatacatgtc ctgcacggat gccaaagtgg aacagatgtt	1260
tcagatactg ttggaccag aagagaaggg cactgagaaa aagcaaaagg cttctcagaa	1320
cctggtggtg ctggccaggg aggatgctgg agcggagaag atcttccgga gtaatggggt	1380

tcagctcttg caacgtttac tggacatggg agagactgac ctcatgctgg cggctctgcg 1440  
tacgctgggt ggcatattgct ctgagcatca gtcacggaca gtggcaaccc tgagcatact 1500  
gggaactcgg cgagtagtct ccatacctggg cgtggaaagc caggctgtgt ccctggctgc 1560  
ctgccacctg ctgcaggtta tgtttgatgc cctcaaggaa ggtgtcaaaa aaggcttccg 1620  
aggcaaagaa ggtgccatca ttgtggatcc tgcccgggag ctgaagggtcc tcatcagtaa 1680  
cctcttagat ctgctgacag aggtgggggt ctctggccaa ggccgagaca atgccctgac 1740  
cctcctgatt aaagcgggtgc cccggaagtc tctcaaggac cccaacaaca gcctcaccct 1800  
ctgggtcatc gaccaaggtc tgaaaaagat tttggaagtg gggggctctc tacaggaccc 1860  
tcctggggag ctgcagtgta ccgcaaacag ccgcatgagc gcctctattc tcctcagcaa 1920  
gctctttgat gacctcaagt gtgatgcgga gagggagaat ttccacagac tttgtgaaaa 1980  
ctacatcaag agctggtttg agggccaagg gctggccggg aagctacggg ccatccagac 2040  
ggtgtcctgc ctctgcagg gccatgtga cgctggcaac cgggccttgg agctgagcgg 2100  
tgtcatggag agtgtgattg ctctgtgtgc ctctgagcag gaggaggagc agctggtggc 2160  
cgtggaggct ctgatccatg cagccggcaa ggctaagcgg gcctcattca tcaactgcaa 2220  
tggtgtctcg ctgctgaagg acctatataa gtgcagcgag aaggacagca tccgcatccg 2280  
ggcgctagtg ggactctgta agctcggttc ggctggaggg actgacttca gcatgaagca 2340  
gtttgctgaa ggctccactc tcaaaactggc taagcagtgt cgaaagtggc tgtgcaatga 2400  
ccagatcgac gcaggcactc ggcgctgggc agtggagggc ctggcttacc tgacctttga 2460  
tgccgacgtg aaggaagagt ttgtggagga tgcggctgct ctgaaagctc tgttccagct 2520  
cagcaggttg gaggagaggt cagtgtctct tgcggtggcc tcagcgctgg tgaactgcac 2580  
caacagctat gactacgagg agcccgaccc caagatggtg gagctggcca agtatgcaa 2640  
gcagcatgtg cccgagcagc accccaagga caagccaagc ttcgtgcggg ctcggtgaa 2700  
gaagctgctg gcagcgggtg tgggtgcggc catggtgtgc atggtgaaga cggagagccc 2760  
tgtgtgacc agttcctgca gagagctgct ctccagggtc ttcttggctt tagtggaaga 2820  
ggtagaggac cgaggcactg tggttgcca gggaggcggc agggcgctga tcccgctggc 2880  
cctggaaggc acggacgtgg ggcagacaaa ggcagcccag gcccttgcca agctcaccat 2940  
cacctccaac ccggagatga ccttcctgg cgagcggatc tatgaggtgg tccggccct 3000  
cgtctccctg ttgcacctca actgctcagg cctgcagaac ttcgaggcgc tcatggccct 3060  
aacaacactg gctgggatca gcgagaggct ccggcagaag atcctgaagg agaaggctgt 3120

gcccatgata gaaggctaca tgtttgagga gcatgagatg atccgccggg cagccacgga 3180  
 gtgcatgtgt aacttgcca tgagcaagga ggtgcaggac ctcttcgaag cccagggcaa 3240  
 tgaccgactg aagctgctgg tgctgtacag tggagaggat gatgagctgc tacagcgggc 3300  
 agctgccggg ggcttgcca tgcttacctc catgcggccc acgctctgca gccgcattcc 3360  
 ccaagtgacc acacactggc tggagatcct gcaggccctg cttctgagct ccaaccagga 3420  
 gctgcagcac cggggtgctg tgggtggtgct gaacatggtg gaggcctcga gggagattgc 3480  
 cagcaccctg atggagagtg agatgatgga gatcttgtca gtgctagcta aggggtgacca 3540  
 cagccctgtc acaagggtg ctgcagcctg cctggacaaa gcagtggaat atgggcttat 3600  
 ccaaccaaac caagatggag agtgaggggg ttgtccctgg gcccaaggct catgcacacg 3660  
 ctacctattg tggcacggag agtaaggacg gaagcagctt tggctggtgg tggctggcat 3720  
 gcccaatact cttgcccatc ctgcttgct gccctaggat gtcctctgtt ctgagtcagc 3780  
 ggccacgttc agtcacacag ccttgcttgg ccagcactgc ctgcagcctc actcagaggg 3840  
 gccctttttc tgtactactg tagtcagctg ggaatgggga aggtgcatcc caacacagcc 3900  
 tgtggatcct ggggcatctg gaaggcgca cacatcagca gcctcaccag ctgtgagcct 3960  
 gctatcaggc ctgcccctcc aataaaagtg tgtagaactc c 4001

<210> 1429

<211> 2293

<212> DNA

<213> Homo sapiens

<400> 1429

atattctgtc tgtgctatcc aatgaggtcg ccactagcca ctgcagctgt cgagcacgca 60  
 agataataag tcgcgctttc ttctcaaac ttggcgaact tggagggagc ttgtccccag 120  
 agaggaggat gtggtgagcc ccggagagga gacggtggag gccctgctgg gcctgggtccg 180  
 cagccgccac tccccctggg ctctgctgaa caactcgaat gcagaagaca gtttcctgag 240  
 agaattggcc atccggaacc cgctgacgat cacagacacc ttcttctact cctacttccg 300  
 gtccctgcgg gtaatagaca agaaggtcac cctggtggat aaagacctcc tgaaatttct 360

aaagctggag gagttggtac tgagcgccaa tcgaatcaag gaggtggatg ccaccaatct 420  
gccccccaca ctcaaggagc ccttttggcc tcccagagac gcattcctat gggttgagaa 480  
ggtgccagat gttatgcagc tccccactg ccaatccagc atcaccccc attccagatg 540  
ttgaagtgtc tttcacaaaa ggaaaagaaa cttcccaaga cctgctgcag gaatcttttc 600  
ttcctgggtt tttaaaaggg agtcggggtg gtgccaggga ggccagggtg gctggagctc 660  
tacggcaatg agatcagcag catggagtggt ctgtgtgccc acccacccgc cggcctgcag 720  
cacttgggggt taggccacaa caaacttcta ggcccccttg aaagtctcta cgtcacccgt 780  
aatcactggg gaagagttag gctgggattg ggagatgctg tgctgacagc ggccgcttgt 840  
gtttttcttc tgttctcaga gctgagatca atttgctttc tagtttgtgg cagcaggctg 900  
cttggccccct gctcacctgg cttcttgacc cccagacggt cctgctcacc ttccaggccc 960  
aacctcgtct ccctggacct gggcttcaac gacctgacag acctgcagag catggtcacc 1020  
agcctgagga ccctccggca cctgcgactc ctggtgctga agggaaacc actggccttg 1080  
gtgccctact accgcggcct caccatcgac agcctggccc agctctgcgt gctggacgac 1140  
atcacctgtg ctcccaatga gaagcatctc ttccgggggc tcagcctcaa tggcgatctc 1200  
ttggcacagg aggcgcagtt tgtggtgacc atcggaacaa tcagaggagt cctggacacc 1260  
tctgtcttag acccggaacc caggcccga ggccctttca tcacttacia ctattacgtg 1320  
acctatgatt ttgtgaaaga tgaagaaggc gaaatgaatg agtccgcggg cgtcctggcc 1380  
gagatcgtca agccctctcc cagcttagaa ttattagttg aggaatctcc tgaagaggtc 1440  
gtggaagacg tcacgaaga cattgttgaa gaggttactg aagaggtcga agggctctctg 1500  
gagtctgagg tggaggagtc aggagagtcg gagctgtctg tcactctggg gccttcgacc 1560  
atcttgca ga tgccgagggc ctctgcagaa gagctggcca agttgaggct gcgtatagat 1620  
ccccggctct gcccgctccc agggactgtc ctcttcagca ctgcccacia gccctgggct 1680  
gaggtcatcc cctgcagtta cgagatgcag cactctctca gggacctggt cccactgaag 1740  
gccttcctgc tggcgggggac caccgtgacc atcgtggagg agaagattct ctctggcct 1800  
gtggtgctac ctgctgttga cagtcccctg tctgccaaga aaggaaaggg ggagaaagac 1860  
aagaaaggga aggagaaaga caggacgggg aaaggagaga aagagccggc caaggagtgg 1920  
aagtgctga agaagaaga agagccgcc aaggagctcc ggcagaacc cccatcctc 1980  
cagtgctgg gccggggcct ggtgatcctg gagcccctgc tcgccgggga gccctgggtg 2040  
tccaccgtgt gcaacttcgg cgtggtccgc acattgacat ctgacaggct gacgttggcc 2100

agggattcaa agaagattaa gaaagttgcc aaaaaagaaa agccgaaagc cgtgattccg 2160  
atctacgaag gcgattacca ccctgagccc ctgaccgtag aggtgcagat ccagctgaac 2220  
cagtgccgct cggcggagga ggctctgcgc atgttcgccg tgtagggcgt gggcagtaaa 2280  
ggctgttccc agc 2293

<210> 1430

<211> 1721

<212> DNA

<213> Homo sapiens

<400> 1430

cacaacatgt gcctgtttgt acagggtctt tggcctacaa tgtccttcct gctacctcta 60  
taattcaagc ttggggtggc tgctgtcacc ttgcttctcc tataaaagcc atgaaacttc 120  
tcaatcagaa aatagatgaa aaaatcacc aatccagtga tttttaaaac tttttagacc 180  
acaaaacctt ttcttcaagc aatatcttcc acagaggccc aatatgtaaa acagaaaaaa 240  
tgggttgagt aggggtacaag acaccactct caaatgcagc aaggcctcca caatagtccc 300  
tgaggccccc agagctccag ggagctcagt gtaaaaacca ctgatgcagt ccaagggcct 360  
catttacaga ggaggaaca gggggaaagt aaaatggcca cagtacacag gaagcacagg 420  
caaggtagg ttaggatttg ggtgccctga ctctgtggcc tttgtccttg gggcttgctg 480  
tgggcatcct gctctctctg caggttgtcg gttcaatggg gacatgggca ggggtggagca 540  
ctaggagggg ctgggtttgc attcccaaat ggcatgtctc caaatcccta ttgggatttc 600  
ttccaaatat tctcctatt tggagcacct ttcccgaata aggcatgaag gctgcatgat 660  
attggccaag tcctagcct tctctgccag tcggcccca gagatggtgt aagaagatct 720  
gagtgtgctg ctcttcaatc ctggagtga aagtcacca ccagtcttc caagaggggt 780  
tgaagaaaag gaggaagggt gattgatgat gagggaggag aaaaagaaga gcccaggagt 840  
accatggaga aggagaagag aagatgagga aagcctactc tcccctcaa gttctgaggg 900  
gctgtctcct cttccttcc ctctccatg ccctcagctt gcaggagcag ccaatggtat 960  
ggcctttaac aaggggcccc tcctcagcat ctgatgctct ctctcaggg ggaccttacc 1020

acccctcaga gtgctgcttc acctacacta cctacaagat cccgcgtcag cggattatgg 1080  
 attactatga gaccaacagc cagtgtctcca agcccggaat tgtcttcata accaaaaggg 1140  
 gccattccgt ctgtaccaac cccagtgaca agtgggtcca ggactatata aaggacatga 1200  
 aggagaactg agtgaccagc aaggggtggc gaaggcacag ctcagagaca taaagagaag 1260  
 atgccaaggc cccctcctcc acccaccgct aactctcagc cccagtcacc ctcttgagc 1320  
 ttccctgctt tgaattaaag accactcatg ctcttccctg gcctcattcc tttctacggg 1380  
 atttactcat tggccatgca ctgaggacac cagggtgtgg caccctcggc atcaagcctc 1440  
 gctctgcaga agttttgctg gagcctggta caaaaaatag gtcaggcctg caatgcaggt 1500  
 agtgagaagc agaaagtgag aaagaaaagc agtgtaaaga ccgtctctc ctcagcaaca 1560  
 acagtagcag accccgtttt cttaatgctt tctatactcc aagcactctg ctaggcagtc 1620  
 tgtatgcatt atcttattta agcttcatga caagtgtaaa agctacaaat catcatttga 1680  
 ttttttaggt aacacttcat aaagggtctt ctatagcagt c 1721

<210> 1431

<211> 1793

<212> DNA

<213> Homo sapiens

<400> 1431

gttgctccgc atggtcctgg gctgtggggg tagccaggct cggggcacct gagctggagg 60  
 cggaagcgtg aaataaggac tgagtgggca aagagaacct gggctgagca gacatggccg 120  
 ctaccaaca agaagagcag atgcagcttc cccgagctga tgccattcgt tcacgtctca 180  
 tcgatacttt ctctctcatt gagcatttgc aaggcttgag ccaagctgtg ccgcggcaca 240  
 ctatcaggga gttacttgat ccttcccgcc agaagaaact tatattggga gatcaacacc 300  
 agctagtgcg tttctctata aagcctcagc gtatagaaca gatttcacat gccagaggc 360  
 tgttgagcag gcttcatgtg cgctgcagtc agaggccacc tctttctttg tgggccggat 420  
 gggtccttga gtgtcctctc ttcaaaaact tcatcatctt cctgggtctt ttgaatacga 480  
 tcatattgat gggttgaaata gaattgctgg aatccacaaa taccaaacta tggccattga 540

agctgacctt ggaggtggca gcttggttta tcttgcttat tttcatcctg gagatccttc 600  
ttaagtggct atccaacttt tctgttttct ggaagagtgc ctggaatgtc tttgactttg 660  
ttgttaccat gttgtccctg cttcccgagg ttgtggtatt ggtaggggta acaggccaat 720  
cgggtgtggct tcagcttctg aggatctgcc ggggtgctgag gtctctcaaa ctccttgcac 780  
aattccgtca aattcaaatt attattttgg tcctggtcag ggccctcaag agcatgacct 840  
tcctcttgat gttgctgctc atcttcttct acatttttgc tgtgactggg gtctacgtct 900  
tctcagagta caccggttca cctcgtcagg acctggagta ccatgtgtcc ttctcggacc 960  
tcccgaattc cctggtaaca gtgttcattc tcttcacctt ggatcattgg tatgcaactgc 1020  
ttcaggacgt ctggaagggtg cctgaagtca gtcgcatctt cagcagcatc tatttcatcc 1080  
tttggttggt gcttggtctc attatctttc gaagtatcat agtagccatg atggttacta 1140  
actttcagaa tatcaggaaa gagctgaatg aggagatggc gcgtcgggag gttcagctca 1200  
aagctgacat gttcaagcgg cagatcatcc agaggagaaa aaacatgtca catgaagcac 1260  
tgacgtcaag ccatagcaaa atagaggaca gaggagctag tcaacaaagg gaaagtttgg 1320  
acttatcaga agtgtctgaa gtagagtcta attatggtgc cactgaagag gatttaataa 1380  
catctgcatc aaaaacagaa gagaccttgt caaaaaagag agagtaccag tcttccccct 1440  
gtgtctcctc cacatcctct tcctattctt cctcttctga atccagattt tctgaatcta 1500  
ttggtcgttt ggactgggag actcttgtgc acgaaaatct gcccgggcta atggaaatgg 1560  
atcaggatga ccgtgtttgg ccagagact cactcttccg atattttgag ttgctagaaa 1620  
agcttcagta taacctagag gaacgtaaga agttacaaga gtttgcaagt caggcactga 1680  
tgaacttgga agacaagtaa agcaatggat ggcttcaata tccttgggcc cagcaaaaga 1740  
taatgaaggg aattgttgga aatagagaat tgaaaatata aacattcaga tag 1793

<210> 1432

<211> 2083

<212> DNA

<213> Homo sapiens

<400> 1432

acttcccaac ggcttcctgc tggcagcccc gaagccgcac catgttccgc ctctggttgc 60  
tgctggccgg gctctgcggc ctcttgccgt caagacccgg ttttcaaaat tcacttctac 120  
agatcgtaat tccagagaaa atccaaacaa atacaaatga cagttcagaa atagaatatg 180  
aacaatatc ctatattatt ccaatagatg agaaactgta cactgtgcac cttaaacaaa 240  
gatatttttt agcagataat tttatgatct atttgtacaa tcaaggatct atgaatactt 300  
attcttcaga tattcagact caatgctact atcaaggaaa tattgaagga tatccagatt 360  
ccatggtcac actcagcacg tgctctggac taagaggaat actgcaattt gaaaatgttt 420  
cttatggaat tgagcctctg gaatctgcag ttgaatttca gcatgttctt tacaaattaa 480  
agaatgaaga caatgatatt gcaattttta ttgacagaag cctgaaagaa caaccaatgg 540  
atgacaacat ttttataagt gaaaaatcag aaccagctgt tccagattta tttcctcttt 600  
atctagaaat gcatattgtg gtggacaaaa ctttgtatga ttactggggc tctgatagca 660  
tgatagtaac aaataaagtc atcgaaattg ttggccttgc aaattcaatg ttcaccaat 720  
ttaaagttac tattgtgctg tcatcattgg agttatggtc agatgaaaat aagatttcta 780  
cagttggtga ggcagattgg agggaaatga aatctgtgat tgtggtactg aggctcaatg 840  
tggaactgca agctgttgtg attttcgaac ttgtgtactg aaagacggag caaaatgtta 900  
taaaggactg tgctgcaaag actgtcaaat ttacaatca ggcgttgaat gtaggccgaa 960  
agcacatcct gaatgtgaca tcgctgaaaa ttgtaatgga agctcaccag aatgtggtcc 1020  
tgacataact ttaatcaatg gactttcatg caaaaataat aagtttattt gttatgacgg 1080  
agactgcat gatctcgatg cacgttgtga gagtgtattt ggaaaagggt caagaaatgc 1140  
tccatttgcc tgctatgaag aaatacaatc tcaatcagac agatttggga actgtggtag 1200  
ggatagaaat acaaatatg tgttctgtgg atggaggaat cttatatgtg gaagattagt 1260  
ttgtacctac cctactcgaa agcctttcca tcaagaaaat ggtgatgtga tttatgcttt 1320  
cgtacgagat tctgtatgca taaccgtaga ctacaaattg cctcgaacag ttccagatcc 1380  
actggctgtc aaaaatggct ctcaagtgtga tattgggagg gtttgtgtaa atcgtgaatg 1440  
tgtagaatca aggataatta aggcttcagc acatgtttgt tcacaacagt gttctggaca 1500  
tggaagtgtg gattccagaa acaagtgcc aatgttcgcca ggctataagc ctccaaactg 1560  
ccaaatacgt tccaaaggat ttccatatt tcctgaggaa gatatgggtt caatcatgga 1620  
aagagcatct gggaagactg aaaacacctg gcttctaggt ttcctcattg ctcttcctat 1680  
tctcattgta acaaccgcaa tagttttggc aaggaaacag ttgaaaaagt ggttcgccaa 1740

ggaagaggaa ttcccaagta gcgaatctaa atcggaaggt agcacacaga catatgccag 1800  
ccaatccagc tcagaaggca gcactcagac atatgccagc caaaccagat cagaaagcag 1860  
cagtcaagct gatactagca aatccaaatc agaagatagt gctgaagcat atactagcag 1920  
atccaaatca caggacagta cccaaacaca aagcagtagt aactagtgat tccttcagaa 1980  
ggcaacggat aacatcgaga gtctcgctaa gaaatgaaaa ttctgtcttt ccttccgtgg 2040  
tcacagctga aagaaacaat aaattgagtg tggatcaatt tgc 2083

<210> 1433

<211> 1712

<212> DNA

<213> Homo sapiens

<400> 1433

atagctacac ataaggattt ttgctttcat ggggcctcct attgggcaaa gccctaaaca 60  
ggcacaaagg gaaaatcaca ataatggaga cccaacctct gctcctgaac acctgagctg 120  
ataggagaga ccagcaatg acctcaagga gctcccagtc caggaagtgg ggataggaga 180  
agggaagtaa acagaaagac tgcccctggg ggagctctta gactcataga gggagacaag 240  
acatgcaaca gcaacgtgtg tacatatact aatgatatct gtggttttgt gctgggagga 300  
ggaaacagca gggaatcata ggaagctggg ccaaggggct ccaatgaaga agtctcaagc 360  
caggttgctc agaagacgag gccctgggaa tccaactcca ggcttccgc taggggtggg 420  
gcagtcccag ctccaggacc cagcaacagc cgctcggttt ccagagtgtc ggcgctctcc 480  
cctccgtggc cgcgggaggg cgctcagctc ccgcacacgg gcaccacctc cccgtccagg 540  
gccccctacc gttgaggcat tccatctctg gctcctcgcc ctggggctgc ttctgcagcc 600  
gcttggtttt gcagcgcttc ttgcagtaga acatgaggcc cagcacggca atgatgtagg 660  
ccacagcggc acccaccgac aacccaatgg tctggatcat cttgtagggg ggagggctgc 720  
cagggccctc cgactcctcc ggcacaggct tgtctgagag acacacagat ggggtctgggc 780  
aggggctgct aagcaaaaga agccctgctt ctctactaac tcctccaac cccatcaaca 840  
gggcaactta acagatggcc cgggagggtc accaccttca ctggctttaa caagggccag 900

caggctcctca tgccccacca aggtcaaacg aagactctga aggagatgag gccaggggtt 960  
cccaagctgg ctttgcacg gaagccaaga caggcgacac ggataagcac acctgtcaag 1020  
gagctaccac aaaccacgt tatttggtta gcttcccaag tgacttgata atgtgagtca 1080  
ggccccggag agcagcattt gggagcttca ggtttagaat tccaggcact gcctggcaca 1140  
gagcaggttt ttcaataagc agatctgtag aagggatctg ctggtctagg ggccttttaa 1200  
tggcccacac tgaggggcct caagaggcat taggggaatg aaggagacc atgcaggatc 1260  
ccccaactgc cacacacacc ccagtggctc ccaccaaggg ggcctcctca gttcattttc 1320  
atccatttaa actttcacat tatactttgt ctagaaaaat aactctgctg ccaaaccaag 1380  
aaagtttaag agcttctcat ttaaaccact ttcacctgtg gatgcagaaa caagtcacca 1440  
gaggagaaat aagtctcca ggggcagaga gttaagtga ggcctttta cctgacccat 1500  
catcctctct gggcctcctg gagaaaagaa ccttgccta ctgcattctg acctggctct 1560  
cctccccagc caccagaga tatgtgtggc tgctgcagga acctgggagg cagcattgta 1620  
ggaagagaac accccccac tccccacaa cacacacaca cacacaccga ccgttggatg 1680  
ttaaataaac gacagcccgg ctttgagcaa gg 1712

<210> 1434

<211> 2384

<212> DNA

<213> Homo sapiens

<400> 1434

gttttttaaa agcaaggata agcagaaagg gacatggatt ttagttgatg gatgactcac 60  
tcactacatt caactgaact gaatctgctc tataccagca aagggacaaa ttcagaaaat 120  
aaattgaaga tggccatgct gtaacttcta aacatggttt gcttctcaga tttacctaaa 180  
ctaagaaagg tttgctttta gaaatagtgc tcccttcaga atggaagaat ttatctgcct 240  
cttatttgat gtggatcaga gctaagatgg ctgactaaat aaacatgggg gactggaatc 300  
tccttgagga tactctggag gaagttcaca tccactccac catgattgga aagatctggc 360  
tcaccatcct gttcatattt cgaatgcttg ttctgggtgt agcagctgaa gatgtctgga 420

atgatgagca gtccggcttc atctgcaata cagaacaacc aggctgcaga aatgtatgct 480  
acgaccaggc ctttcctatc tccctcatta gatactgggt tctgcagggtg atatttgtgt 540  
cttcaccatc cctgggtctac atgggccatg cattgtaccg actgagagtt cttgaggaag 600  
agaggcaaag gatgaaagct cagttaagag tagaactgga ggaggtagag tttgaaatgc 660  
ctagggatcg gaggagattg gagcaagagc tttgtcagct ggagaaaagg aaactaaata 720  
aagctccact cagaggaacc ttgctttgca cttatgtgat acacattttc actcgctctg 780  
tggttgaagt tggattcatg attggacagt accttttata tggatttcac ttagagccgc 840  
tatttaagtg ccatggccac ccgtgtccaa atataatcga ctgttttgtc tcaagaccaa 900  
cagaaaagac aatattccta ttatttatgc aatctatagc cactatttca cttttcttaa 960  
acattcttga aattttccac ctaggtttta aaaagattaa aagagggtt tggggaaaat 1020  
acaagttgaa gaaggaacat aatgaattcc atgcaaaciaa ggcaaaaaciaa aatgtagcca 1080  
aataccagag cacatctgca aattcactga agcgactccc ttctgcccct gattataatc 1140  
tgtagtgga aaagcaaaca cacactgcag tgtaccctag tttaaattca tcttctgtat 1200  
tccagccaaa tcctgacaat catagtgtaa atgatgagaa atgcattttg gatgaacagg 1260  
aaactgtact ttctaattgag atttccacac ttagtactag ttgtagtcac tttcaacaca 1320  
tcagttcaaa caataacaaa gacactcata aaatatttgg aaaagaactt aatggtaacc 1380  
agttaatgga aaaaagagaa actgaaggca aagacagcaa aaggaactac tactctagag 1440  
gtcaccgttc tattccaggt gttgctatag atggagagaa caacatgagg cagtcacccc 1500  
aaacagtttt ctcttgcca gctaactgcg attggaaacc gcggtggctt agagctacat 1560  
ggggttcctc tacagaacat gaaaaccggg ggtcacctcc taaagtgcct ggctcaaaag 1620  
ctactgcaag ctcgttactg ctcatcctcc agaggcccac atcaagtcag ccacgactca 1680  
aggagactcc aaagataaaa gctgaagcca aaatatatga ttctaaacac cctcctcagc 1740  
tactgcaaag cactgtgagc actttctcag gacgagagcc aagaagccca gcacctatgg 1800  
gtcaccacag tttccgaggt ccagatgaa aaagatgcgc tcgctaccac cgtgcggcgg 1860  
tcctttctct cgcaatagtc tcaatgtcc cgggccctgc ctccggacgc caggacagag 1920  
gccgccgact cgaagcgtga gcagttccgg aggtacttgg agaagtcggg ggtgctggac 1980  
acgctgacca aggtgttggg agccttatat gaagaaccag agaaacctaa cagtgccttg 2040  
gattttttaa agcatcactt aggagctgct actccagaaa atccagaaat agagctgctt 2100  
cgcctagaac tggccgaaat gaaagagaag tatgaagcta ttgtagaaga aaataaaaaa 2160

ctgaaagcaa agcttgctca gtatgaacca cctcaggagg agaagcgtgc tgaataggat 2220  
tcttctcagt ttgaaagaca atgaaaaatg gttttgtatg acttgaatag tttgtatagt 2280  
atataatctt ttctgaacag atgctataga actcttttaa tatgtttaat tcacctatca 2340  
cactctgtta aaaacacata gaatcatcaa taaaaactca atat 2384

<210> 1435

<211> 2794

<212> DNA

<213> Homo sapiens

<400> 1435

aaagccgttt gggaacttgt ggaggcgggg tggtagagtg cagagacgag atcgcggaagc 60  
tttgaaaagc gcgggcaaca tccgggcacc tgggccgtcg agctgaggcg cgccttccga 120  
gcctgctttt tagggcggat ggcagccatg ctgaatatat gggaaagcag ttcaagctct 180  
atcacgaatt agtgacgagt tctggctaga cccatctaaa aaaggtcttg ctctaagatg 240  
tgtgaattct tctcggtcag catatggatg tgtcctgttc tctcctgtgt tttttcagca 300  
ttatcaatgg tcagcttttag tgaaaatgag tgaaaatgaa cttgacacaa cactgcattt 360  
aaaatgcaaa ttgggaatga agtcaatttt gcccatcttt agatgtctga attcccttga 420  
aagaaatata gagaagtgca gaatattcac cagatctgat aaatgcaaag tagttattca 480  
attcttctac agacatggta ttaaaagaac tcataatata tgttttcaag aaagtcagcc 540  
tttgcaagtt atttttgaca agaatgtttg tactaatacg ctaatgattc aaccaagatt 600  
gcttgctgat gccattgttc tttttacatc aagtcaagag gaagttactc ttgctgttac 660  
tccactgaat ttttgcctca agagttctaa tgaggaatca atggatttga gcaatgctgt 720  
acacagtgag atgtttgttg gctcagatga gtttgacttc tttcaaattg gaatggacac 780  
tgagataaca ttttgtttca aagaattgaa gggaataactg acattttcag aagctacaca 840  
tgctcctata tccatttatt ttgatttccc tgggaaacct ctggctttga gtattgatga 900  
tatgttagtg gaagctaact ttattttggc cacattagct gatgaacaaa gtagagcatc 960  
ttcaccacag tcactgtgtc tttcacagaa acgaaaaagg tcagatctga ttgaaaaaaa 1020

ggctggcaaa aatgtaactg gccaggccct ggaatgtatt tcaaaaaag cagcaccaag 1080  
aaggctttat cctaaggaga ctctcacaaa catatctgca ttggaaaact gtggcagccc 1140  
tgcaatgaaa agagtggatg gagatgtcag tgaagtatca gaaagcagtg tcagcaacac 1200  
agaggaagtg ccagggtctc tgtgtctcag aaagttttct tgcattgttct ttggagcagt 1260  
ttcttctgac cagcaagaac acttcaacca ccttttcgac agtctggcaa gagcaagtga 1320  
cagtgaagag gacatgaata atggcagttt ctctatattc taatgcttaa tgatggctga 1380  
gctgggcccc agcccagtga ctggctcatt tgcccccaa gcacgagttt gcatgttttag 1440  
tgtctaaaag aggttgtcca ggacttcctt ttaatggagg atgggctttt aaaccacatc 1500  
atcttgata acaaccatat ctgaaatag ctgtttgtca agtgtatgta acttgcttta 1560  
aatccattat gctacttgtg aggagaaga gttttctgtg aaggaaaaaa gccattaga 1620  
gttcttcaat tcaatgcacg ttcaccctag agcttttaac atctttgcta gttttataaa 1680  
ggtatttaaa ctttattcaa cagccattta gagtgccatc aagatggctt gaaatggaat 1740  
tttgtgattt gtagtcaggt atcttttgta ttgtattgca aacatttgga ttttagtttt 1800  
ctcatgtaat accatggcct tttttgtgca ttgtttttta tattttaaga ctttaagtag 1860  
aataaacctt ggaaaaaga tcaagagtaa aaatatatag tcactttcac ttggcttttt 1920  
tagacggagt ctactttgt cactcaggct caagtgcagt ggtgcaatct ctgctcactg 1980  
caacatctgc ctcccaggtc caagcgattc tcctgcctca gcctcccgtg cagctgggat 2040  
tgcaggtgcg tgccaccatg cctggctaata ttctgggtatt ttgtagagac agggtttcgc 2100  
catgttggcc aggggtggtct tgaactcctg gcctcaagtg atctgccac ctcggcctcc 2160  
caaagtgctg ggattacaga cttgagccac tgcgccaac ctggagtgtt ttacatatt 2220  
gtaaaatttt atttctaac ctcaaattgt tctgattttc agatgtgatt ttttattttg 2280  
cagtgtgctg caggaaagaa tttaatggaa gtgatgcaa atatttctgt attatctgac 2340  
atagaacagt atcctccact gccaaagacag cctgagtttg gagtggaata aggtggaaga 2400  
caaagtctc tgttcttttg ccttttaaga gttagctttt tacctgcaca aatggactaa 2460  
aaaatctggc aaaaacatt gttatgtaat gtcttatgat gtgtgcctct cctccccca 2520  
aacctgttta cagtcaatta taacctgaca aacgagactt ttgtaacata ttattgttac 2580  
atctttctga aaccttcaaa ccgtaaggaa gtgttaactg gcaagcagtt gtactttaga 2640  
ctttgtgaga aattcataaa ggtggctgag tggatttgca tgctttagaa ctgtgaatag 2700  
agttctaact gaaaccagaa ttaatttggc tctttagct tagtaatgag tcatagctac 2760

ccacaataac ctaataaaaa ctcaagttca tccc

2794

&lt;210&gt; 1436

&lt;211&gt; 2621

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 1436

aaaagttata acagagacta aagaagaaag acgcttactg aataaggtgg gatccaacaa 60  
gagtgtagta tggaatgcaa tagcttatga attacttttt ttctgaggga gctcaacaga 120  
atgacaccta agaaagggaa agtcctttgac acttggtacg tttgtgattt ttggtcatta 180  
cttgaaaatt aataagtttg aaatcactac tcttagaaat ggaagaaagt gatgactcta 240  
atcagccttt ctcagcgtgt aggcaagaaa ttcgaaagag aagatgaccc agcaaaccaa 300  
tggtaggcaa atcccagcaa actgatgtaa tagagaaaaa gaaacacatg gccataccaa 360  
aatcatctag ccccaaagct acccatcgta ttggtaatac ttctggaagc aaaggcagct 420  
actctgccaa agcctatgag tctattagag tatcttctga gcttcagcaa acttgacaa 480  
agagaaaagca tggacaggaa atgactagta agtctctcca gacagacacc attgtagaag 540  
agaaaaaaga agtcaagtta gttgaggaaa ccgtggtacc tgaagaaaag tcagctgatg 600  
ttagagaagc tgctattgaa ttgccagaga gtgttcagga ttagaaaatt ccaccaacaa 660  
taccttcagt tcaactaaaa atggacagat ctcagcagac cagccgtaca ggatactgga 720  
ccatgatgaa catccccct gtagaaaaag tggacaagga acaacagaca tacttttagtg 780  
aatcagaaat agtggttatt tccaggccag atagttcttc taaaagtca aaggaagatg 840  
ccctgaaaca taaatcgtcg ggaaagattt ttgctagtga acaccctgaa tttcaaccag 900  
caacaaacag caatgaagaa attgggcaga aaaatatcag cagaacttca tttactcagg 960  
agactaaaaa aggtcccccg gtacttttag aagatgagct tagggaagaa gtaactgtac 1020  
ctgtgtaca agaaggttct gctgttaaaa aagtggcttc tgctgaaata ggcctccat 1080  
caacagaaaa attcccagct aaaatacagc ctccattagt tgaagaggcc actgctaaag 1140  
cggagcccag acctgctgaa gagacccatg tccaagtaca gccatcaact gaagagactc 1200

ctgatgctga ggcagccact gcagttgcgg agaattctgt taaagttcag cctccacctg 1260  
ctgaagaggc cccttttagtg gagtttcctg ctgaaattca gcctccatca gctgaagagt 1320  
ctccttctgt agagcttctg gccgaaattc tgcctccatc agctgaagag tcccccttcag 1380  
aagagcctcc tgctgaaatt ctgcctccac cagctgaaaa gtctccttca gtagagcttc 1440  
ttggtgaaat tcggtctccc tcagcacaaa aggctcccat tgaagtacag cctttaccag 1500  
ctgagggcgc ccttgaagag gccccagcta aagtagagcc tcccatgtt gaagagaccc 1560  
ttgctgaagt tcagcctcta ttacctgaag aggctcctag agaagaggct cgagaacttc 1620  
agctttcaac agctatggag acccctgcag aagaggctcc tactgaattt cagtctccat 1680  
tacctaaaga gaccactgca gaagaggcct ctgctgaaat tcagcttcta gcagctacag 1740  
aggcttctgc agaagaggct cctgctgaag ttcagcctcc accagctgag gaggcccccg 1800  
ctgaagttca gcctccacca gctgaggagg cccccgctga agttcagcct ccaccagctg 1860  
aggaggcccc cgctgaagtt cagcctccac cagctgagga ggcccccgct gaagttcagc 1920  
ctccaccagc tgaggaggcc cccgctgaag ttcagcctcc accagctgag gaggccccct 1980  
ctgaagttca gcctccacca gctgaggagg cccctgctga agttcagtct ctaccagctg 2040  
aggagactcc tatagaagag acccttgctg cagtacactc tccccagct gatgatgtcc 2100  
ctgcagaaga ggcctccgtt gacaaacatt ccccaccagc tgatttgctt ctgactgagg 2160  
agtttcctat aggagaggcc tctgctgaag tttcacctcc accatctgaa caaacccctg 2220  
aagatgaggc tctggtagag aatgtgtcta cagaatttca gtcaccgcag gtggcaggaa 2280  
ttccagcagt aaaattagga tcggttggtt tggaaggtga agcaaaattt gaagaggttt 2340  
caaaaatcaa ttctgtcctt aaagatttgt ctaataccaa tgatggacag gctcccactc 2400  
ttgaaataga aagtgttttt catatagaat taaaacaacg tcctcctgaa ctgtagtcag 2460  
gttgtaccta agctagcaat cagaagctac atggtttttg aagaacatac tttagaaaag 2520  
ggtgggcagc aggaagtagc tttgtcaata aggcaaatta aaggggaccc caagacttgg 2580  
aatacaggtt ggaaaatgaa caataaaaac ttagtagca t 2621

&lt;210&gt; 1437

&lt;211&gt; 1881

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 1437

acacaggcgg	gtggggatcc	tttcaacagg	gctcccagca	atagagcagt	cccactctcc	60
cagatgagct	ggagaagtag	ctacctctcc	cagacagagt	tgggggtcaaa	ttcatgcaca	120
tccaattccc	atcaaagcct	actcttccca	gggcttgctg	ggagggaagg	ataactgcag	180
gctcccctgg	gatgccccca	ggtgagggaa	gttcacagag	tttgagacag	aggtgaatgg	240
acaggtgtgc	ttcttaggga	agcagtcgag	aggtggcaag	aagttggcag	ctgccctcaa	300
gagggtcctg	gcaccatgga	caatgacaag	cctcttcagc	ctgagacaga	agatgagatt	360
gaaattgagc	cagtacgaca	gagcagcgat	aaaatgctct	actgtgaggc	cgaatccccg	420
ccgactgttg	aaaaagtga	accagcctgg	gagaattcgg	aaacagacct	ggagattgaa	480
gtttcccca	gaagggaagc	accgaaagag	aacacttggt	aagcaagaga	atgacgctgg	540
ttccatctga	caggatgatg	agaaattttt	caccactgga	caaaaggagc	tgtacctgga	600
ggcctgcaag	ctgatgggtg	tagtgccctg	ctcctacttc	attcggaaca	tggaggagtc	660
ctacgtgaac	ctcaaccacc	acggcctggg	ccccaggggt	accaaggcta	ttgctatagc	720
cctgggtgtcc	aacatggctg	ttaccaaact	ggagctggaa	gacaattgca	tcatggagga	780
gggcgtcttg	agcctgggtg	agatgctaca	agagaactac	tacctccagg	agatgaatat	840
ttccaacaat	caccttggtt	tggagggggc	cagaatcatc	tcagatttct	ttgagagaaa	900
cagttcttct	atctggagcc	ttgagctttc	aggaaatgac	ttcaaggaag	actccgcagc	960
actgctctgc	caagccctgt	cgaccaatta	ccaaattaaa	aagctggatc	tcagtcacaa	1020
ccaattctct	gatgtaggag	gggagcacct	gggccagatg	ctggccatca	acgtggggct	1080
cacgtcactg	gatctgagct	ggaataactt	ccacacaagg	ggagctgtgg	ccttgtgcaa	1140
tggctctccg	gggaagtcct	ccgactcaac	cgctgcctgg	tctacctgga	tatcggtggc	1200
aatgacatcg	gcaatgaagg	ggcctccaaa	atcagcaaag	gactggaatc	caatgaaagc	1260
ctcagagttc	tgaagctttt	cctgaatccc	ataaatatgg	acgggggctat	tttacttata	1320
ctggctatca	agaggaaccc	caaattccagg	atggaagagc	ttgatatttc	caacgtgctg	1380
gtgtccgagc	agttcatgaa	aacgttggac	ggagtgtatg	ccgttcaccc	gcagctggac	1440
gtgggtattca	aggcagtaca	aggcctctct	ccaagaaaa	ccatcttctt	gttgacaaac	1500
cccatgaaac	tgatccagag	ctatgcagac	caacacaaaa	tcacgatcgt	ggactttctt	1560

aagagcttga accctactgg gacaatgaag atgtctgtgg atgagttcca gaaagtgatg 1620  
atagagcaaa acaaggtccc cctgaaccag taccaggtca gggaggtgat aaagaagctc 1680  
gatgagaaga caggcatggt gaacttcagt ttcttgaaca cgatgaagcc atagcaacaa 1740  
gtctggtcta gaaagaagtc tcggcgagag gagtcctcgc aagtcggatg gtggcaggga 1800  
ggagagcaag aggtggctga aatctcgatg gacagatgct gtggcagggg ctgggcacaa 1860  
gcaaataaag tctggcttgg t 1881

<210> 1438

<211> 2553

<212> DNA

<213> Homo sapiens

<400> 1438

ttttttccta ggccagcggg cggttgtctg tggctccgcg actgggcgcc ccgtcacgga 60  
ggtgcatttg ttgaaatfff cagtgtcaa ggaaaaaatc ctggagcaaa atggaagatc 120  
cttggtagtc catctgtgat ttggaaagag ttgataaag aagttaaaag ttttgtgttt 180  
gtcctggaag gcagcagcca aacaaacaaa attcagttac caaaggagaa taagcaaagc 240  
cttggattga tccagaggtt tcttgtactt cagatttacg taccctggg acaagacttc 300  
tccactgaat tgctaattac tgatttaggg aacatcaaaa gaagattata tttatcaacg 360  
gtccataagg aactatctc caccctctt catgcaaaaa ttccactctt catgatcaaa 420  
cgtaaaatff ggtgcaatct atgcattgac ttagtagcat tcaccagtga aatattcaag 480  
ggggcagttt tccagtcatt ggatggaatt gttgtctcag ctaactgtaa gctacggaag 540  
atcttcacct taaaatcaaa gccacaagac actgctgata aggatgctgt ctatggtgtt 600  
cccttttcaa cagatgagcc tacagatatt ataccacgaa gctgtcaact aatgacagat 660  
gttccacatg tcacacagct gctaaacatg actaaacttc gccaaactga aataaaattc 720  
ggaggccatc ctctaagatc agcagaatca gatcagttca ttaacagagg aacaagtatt 780  
acacggaaca gtaaaaatca agatgtttgt catatcgcat ttggatccaa agttcttggg 840  
ccacctccac tctctggcag aaggaataac atgaagatat ccagcgagac agtgagatcc 900

gttgggtcca aaaataaccg atcatgccag cagtccactg tagagaagtg tgttaatggt 960  
acagaaatgt cagccttgct gatacctgag tctgaggaac aaggaaataa agaaaatatt 1020  
caccaaataa agcagactgt acctattcat gcagccaatc tacatattat gcatccgcat 1080  
ccccctcaag aaccatcagc agataagaat aataacagaa gaagattacg gttaaaaagt 1140  
accagcagag aaaggacaga gacaccacgc ggtagctctt caggaaataa taggattgaa 1200  
gataaagcat caactatcct caccactgtg tcccaacaag gagcagagct gttgaactcc 1260  
ggcactctag gaccccagtc tcctgatcaa tcagatgagt ggatttttcc tgaaaatgct 1320  
gatcacattt catatctggc atccagcaga cagtctctac ttctgggtga tgactcctgc 1380  
aaccatcac acctgtggct ggaagccagc aaagagagtg aacacgacca gcaggcagag 1440  
gaatcccaga gtgttccaaa ggacattttc actttttcat caagaccacg atcagcacct 1500  
catggaaaga ctcagactat gtccccagag gagctctcat ttattttgga tctaaaagag 1560  
gataacagtg tgacaagcag agacacccaa tcagaggatg atttttacgg cggcgacagc 1620  
agtgaagagg aatatgactg gcgaaactat cagccaagcc agatgagtga atccgagtta 1680  
cagatgctag caagcctacg gtggcaacaa aatgaagaac tggaggatgc tgggacctcc 1740  
catggcctga gtgcctccca ggtggacaac tgtaatgtca gcataagtac cagcagtgac 1800  
gacacaacca cctggaactc ctgcctgcc accccgtgca accagggtcg ccaactatcag 1860  
aaagaaatga acccaccttc tcctttctaat ccccgaggact ggttaaatat gttgagccca 1920  
ccaatcgctc ctcccagtca acagccggct gagcagcgtc cagattcctg tgaaagtttg 1980  
agtgttcaag gtgaagaaga cctcagtgtg gaagaggacg aggaagtact gactttgttg 2040  
tatgaccctt gtctgaactg ttactttgac ccccaaacag ggaaatacta tgagttggta 2100  
taatgcctcc ttccggggca gagagcaggc actcccagct ggagcagaat agcagttcag 2160  
ggtcgcttaa ggagtcacca caacttatgt gttgggtgac cacaaaatca acagtaactg 2220  
agagaaacga attcattttg taaataatgt tcaacgttaa gaataacctat attccttttg 2280  
tagatgagta tgattttgaa actgaagaaa ttaatacaga ggcaagattt taggagtttg 2340  
aattggttct tgtttgttct cattctacat ataattttgt ttatttcaga taattttatg 2400  
taaacaaatt aagagttatt cattcaaatt ttttgcagtg ttaatctgta aatgatggct 2460  
tgatgtacag aaaatgtatt tttgcttaaa agatgcctgg gtacctttta ttttatggca 2520  
tttgatttaa aaataaagta tgatggtaag aag 2553

&lt;210&gt; 1439

&lt;211&gt; 2347

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 1439

```
aaatcggggc ccatgtgtgc tgttgggaat gtaggatggt gcagctgctg tgtggaggcc 60
ccccaaaat ttaacataga attaccatat ggtggggcaa cccacttct gggtatcaaa 120
gaaatggaag tgggaacttg aagaggaatc tggccaccgc gttcattgca gcgctgttca 180
cgatggccca acggtgggag caaccgagt gtccgctgat ggggtggtggg taagaagctg 240
gggccccatcc acacgttga ataggattca gcctggaaaa ggaaggacgt ttggacgcac 300
gctgcgacat gcacgggcct tgaggaagtt atgcgagtga aataagccac aacaggacaa 360
ataccgtacg attccatttg catgagctcc ctagagtagc cagatccaca gagacagaaa 420
agagaatgaa cgtgcgcac gaccccagta gcctgtcctt caacatgtgg aaggagatcc 480
ctatccccctt ctatctctcc gtctacttct ttgacgtcat gaaccccagc gagatcctga 540
agggcgagaa gccgcaggtg cgggagcgcg ggccctacgt gtacaggagag ttcaggcaca 600
aaagcaacat caccttcaac aacaacgaca ccgtgtcctt cctcgagtac cgcaccttcc 660
agtccagcc ctccaagtcc cacggctcgg agagcgacta catcgatcatg cccaacatcc 720
tggtcttggg tgcggcggtg atgatggaga ataagcccat gaccctgaag ctcacatga 780
ccttggcatt caccaccctc ggcgaaacgtg ccttcatgaa ccgcactgtg ggtgagatca 840
tgtggggcta caaggacccc cttgtgaatc tcatcaacaa gtactttcca ggcatgttcc 900
ccttcaagga caagttcgga ttatttgctg agctcaacaa ctccgactct gggctcttca 960
cgggtgttac ggggggtccag aacatcagca ggatccacct cgtggacaag tggaacgggc 1020
tgagcaaggt tgacttctgg cattccgac agtgcaacat gatcaatgga acttctgggc 1080
aaatgtggcc gcccttcatg actcctgagt cctcgctgga gttctacagc ccggaggcct 1140
gccgatccat gaagctaata tacaaggagt caggggtgtt tgaaggcatc cccacctatc 1200
gcttcgtggc tccaaaacc ctgtttgcca acgggtccat ctaccaccc aacgaaggct 1260
tctgcccgtg cctggagtct ggaattcaga acgtcagcac ctgcaggttc agtgcacct 1320
```

tgtttctctc ccattcctcac ttcttcaacg ccgacccggt tctggcagaa gcggtgactg 1380  
 gcctgcaccc taaccaggag gcacactcct tgttcttgga catccacccg gtcacgggaa 1440  
 tccccatgaa ctgctctgtg aaactgcagc tgagcctcta catgaaatct gtcgcaggca 1500  
 ttggacaaac tgggaagatt gagcctgtgg tcttgccgct gctctggttt gcagagagcg 1560  
 gggccatgga gggggagact cttcacacat tctacactca gctgggtgtg atgccaagg 1620  
 tgatgcacta tgcccagtac gtctctctgg cgctgggctg cgtcctgctg ctggctcctg 1680  
 tcatctgcca aatccggagc caagtaggtg ctggccagag ggcagcccgg gctgacagcc 1740  
 attcgcttgc ctgctggggg aaaggggcct cagatcggac cctctggcca accgcagcct 1800  
 ggagcccacc tccagcagca gtctctcgct tctgccggag tgggagcggg cactgctggg 1860  
 ggctgcgcag cacgcttgcg tcttttgcatt gccgcgttgc cactactctg cctgttcttg 1920  
 aaggcctggg accctccctt ggaggggggca caggtgggct ttgagtaatg agacctggta 1980  
 cttgcatcat ccattcatca agtcagcacc cggggatgcc aggttctgtt aggggagagg 2040  
 ggacgtacag cagtagagga gacagctgag atccctgctc agggggattg aggggggctg 2100  
 gcatcccagc cggggagaca gatgaaaacc aagtaaatca gcagaaaaga taatttact 2160  
 catgatagga gctgtgaggg gtttagagcca aatagaaata cagcgtgagc cacgtgtgag 2220  
 gttttcagtt taaattttct aatagccact taacagtcaa aggaaacagg tggaattaat 2280  
 tttaatctta tttaaccaa atatatgcaa agtattatca cttcaacatg taatcagtat 2340  
 aaacggc 2347

<210> 1440

<211> 2346

<212> DNA

<213> Homo sapiens

<400> 1440

aaaatgcagg gcgcagcagc cgctgcagtg gagccggtag gcctggccgg cgggctgaaa 60  
 ggaagtgcga gctgtccgcc cagggccggg tatccgcccc tgcaggctgt ggaggggatg 120  
 tcaggagact ggctggcctc ttttcttggc ccccgactcc ttccagtctg aactgaaga 180

ctttataagc ttccccccga ccacctcca cgggctccac tctccacggg cctgggcttg 240  
cgccgcttcg agatcagcct gggggtcgcg ccctcctggg cttgtccacg aagcgccgtt 300  
cttgggcccgt taggagctgc tgggaagggc tctgataggc ccactcctct tctccacca 360  
ggagatgaga aggagggcag gcctttttta tctgatcaga atgttaacct atctctccgc 420  
cttgcggtag aacccttgga tacattatit gccctctcga aaggcaggct ctgaatttga 480  
ttcaggtata tttcttcata gctaaccagc acaatggaaa actcaggga agcaaataaa 540  
aaggatacac atgacgggcc accaaaagaa attaaactgc ctaccagtga agcacttcta 600  
gactatcaat gtcaaataaa ggaagatgcc gtggagcaat tcatgtttca aataaagaca 660  
cttaggaaaa agaaccaaaa atatcatgaa agaaatagcc gcttaaaaga agaacagatt 720  
tggcacatac ggcatctact aaaggaactg agtgaagaga aggcagaggg attgccagtt 780  
gtaacaagag aggatgttga agaagcgatg aaggaaaaat ggaagtttga aagagaccag 840  
gaaaaaaaact tgagagatat gcgcatgcaa ataagtaatg ctgagaaact atttcttgag 900  
aaactcagtg aaaaggaata ttgggaggag tacaagaatg tagggagtga acgacatgct 960  
aaactcatta cctccttaca aaatgacatc aacacagtta aagagaatgc agagaaaatg 1020  
tcagaacact ataaaatcac tctggaagat actagaaaga aaataatcaa ggaaactttg 1080  
ttgcaactgg accaaaagaa ggaatgggcc acacagaatg ctgtaaagct cattgacaag 1140  
ggcagttatc tagagatctg ggagaatgac tggctcaaaa aagaggttgc aattcacagg 1200  
aaggaagttg aagaattaaa aaatgctatt catgaactgg aagcagaaaa tttggtgctt 1260  
attgatcaac tatccaactg tagacttgtg gatctcaaga taccaggta tccagtgcta 1320  
cattcctgtc ccacctctaa tcctcgctcat ctgctgctgc tgcctttgga atcatgtcta 1380  
atctctgccg ggcgttgctg gcgactatat cttaccaag ctgctggact agaagtgcc 1440  
cctgaagaaa tgtctttgga attgccagaa acacatatag aagagaagtc agaattgcaa 1500  
cccacagaag tagaaagtag agacttgatg tcctcatcag atgagagcac tatcttacat 1560  
cttagtcatg aaaatagcat cgaagatctc cagtatgtga agatagataa agaggaaaac 1620  
tcaggcacag agtttgggga cactgatatg aagtacttac tatatgagga tgagaaggat 1680  
ttcaaggatt atgtaaactt gggccccctg ggagtgaagc ttatgagtgt ggagagcaag 1740  
aaaatgccca ttcattttca agagaaggaa attccagtca aactctataa agatgtcagg 1800  
agcccagaaa gccacatcac atataagatg atgaagtctt ttctctaaga cggaagctg 1860  
caaaggaaac acaacttttc cttataaatg ttctttggga actgaagtat atccgttgcc 1920

cattttactt acactttggc tcatttttaa accagctggt atttctaaag gtcataattta 1980  
catttaaaat caaaggtatt cagctattca ttactttgca tggatatgagt gaccaaaacg 2040  
gaagcacgct ttgtatttct acactgaagt attcagaagc atgacagtgg gttcaaggta 2100  
gtctctgagg ttccttttca cacacaaaaa attcactgat taatctgtga ttccagtatg 2160  
aaatagttcc attagaaatg tttctaagaa aaacttagaa gtttgcatag cattgtctac 2220  
acatctttcc ctctgaggat gctcaatgtg atagacagcc agtctataat gcaagccaat 2280  
tctccgtagt ttaaccctgt gtattagtct gttctcatgc tgctaataaa gacataattg 2340  
aaactg 2346

<210> 1441

<211> 2496

<212> DNA

<213> Homo sapiens

<400> 1441

atcttggaga tggaggaaag cttgccagaa caactgcaca ccccatccac tctcatgtt 60  
ctcagtttgt tcttctctgt gatacaacca gcatcacgag aacagccagc agcagctcca 120  
gcgtgataaa attttcactc cttgacaagt gtaagaagcc ggaaaactgt gccagccag 180  
aagttttgtg tcgccccctt gagatgctgt ctaacctcca cgagctgctt ccgaatcacc 240  
tgatggagac gctttattcc cgcaagagtg aagaggacaa gaaaaaatgt gagaatcctg 300  
aactctctgg cttagaaaga atcttagcaa gacatcagtt gccaaaagag attaattctga 360  
cccaaagcc gaacagaatg cccccgtgga aaagaaaaat catcaacaat gtaactgacg 420  
ggtggaagaa atgtcacttg ttgaagagaa acacgaaaga gcctccaatg tccaccatag 480  
ttgtcagtaa tactattcct tccattttgc tcccttgcta catggctgaa aaagaacatg 540  
caacccttg aagacctcaa gtcagtgatc ttaggctgt cagcatttgg cccaattcag 600  
tcagccactg tttgtggacg tcaaagtgt atagtggcat tcaaagacat gacttcagcc 660  
tgtaatgctg tgagtgtttt tcaaagtagg accccaggca ccatgttcca gtgttcctgg 720  
caacaacgac tcatgtcaaa agacaaaact tattcaaaaa aatgtaccca gaagacacag 780

cctaaggaat acaagcagga aactgagaaa cctgccaaaca acagctaaag ggacacaaac 840  
agtgtctcct gaatctttca gaataacatg aaagctgtat acctattgtg gaatttgatt 900  
agaatccgga acagtcagag ttggaacaat gttcacaaca aatgcaagt taataatgaa 960  
ggaaaaataa aatcagtcaa atcagcctaa tgctttggga aaaatctaaa ttcagttaat 1020  
tctaccacaa acaacatgta acctgcttat gactggcaac gctgaaggag gattcaaagg 1080  
ctctcatctc gcgctgcttg cctgacctct tgctttctag gagctgactt accctgtcag 1140  
atgcatacac ggcatcgaat agcccaagga ggggtgacgga gatgccca gctggaccat 1200  
tgaccactgc aatcagaggc ttaggaaaaat ctataaaaca gccacaaat tccctacaga 1260  
aatggaaaca caaatcatt aaatgtgcca aagcagcatg actaaagcat gggcaagaca 1320  
gtctgactct gagataaagc cttctgtcag gctgggtgtt tccacagcca ccaccagcag 1380  
tgctccttg tcttgccact tccctggtct tccgcaccag attcatccag ggcatccgtc 1440  
tgaatggcag tggatggaag accaaccagt gagacctatg ggtcaaccct ggtttgaatc 1500  
ttgtattctg gacagtgagt tcagggtgt aaaccagccg cagtcttaga gattaggttg 1560  
ggtgactgag cacatgctgc aatatcacia caagtgggaa ttacagattt ggcaggaata 1620  
aagagaaaag cttcatgac ctctctctgt gtttacaaga ctcttcgag tctctacct 1680  
tcagcgttca tggaaatctc ccattctctt ggctggatga gaatttgcta aattctcttg 1740  
cctcagtga agataatttt gtttacaact atagctcact tttatgtttt ccagtcaaat 1800  
ctcatgagac cagcaggatg aacaggtaac agagggtcaaa gagaaagaat gaatgccac 1860  
ctatggatgg aggcagttta gagaaatatg cttgtccaaa gtcacaatta actgcactga 1920  
cacagagaag cagatattgc acttttgctc aactaaatac cactttgatg actaagaacg 1980  
ggccctctgg gatcagacaa aggaaaatca cagtgccttc tgggtatata agaacctacc 2040  
tgaaattcac aaactctaaa caatgaatgc tcaactctgt tgtatgaagt agccacaatt 2100  
accaaccttc ctgcacaaat caaacaagag atatcttaaa ataggaatga tgctgaaact 2160  
ctacagcttt tgtgtgaaac acatagaaga agaaagtaaa acaggacaaa ctccgtgggc 2220  
aggctccacc tgactagagg attccaatga aggactcaaa ctggacacca aatccacata 2280  
gttctgcctg gcagcttcct gaacggacga tgacaaacaa cctcagccca tggatcaatga 2340  
atacgcaatt tgagaaagtt actatactaa taactaacac cttgcaatga agaaagaata 2400  
gaagcacatc aagatcttga agactccatt tacaatggct taatgagaag cacaacttc 2460  
tttagaagta cagcaaataa aagcacagta actagt 2496

&lt;210&gt; 1442

&lt;211&gt; 2075

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 1442

aactcaggcc	caagtcacag	gaatctgaat	ggtaggggtga	ccttctcctc	tagtttaatt	60
tcattgcaat	actgagaaac	ttcaactgtt	ttgtcttttag	aagggaatt	catgtttgtg	120
ccaggccagc	ctttgtaaaa	gcctttaatt	ggattcacta	gaagtctgtc	ttcccgcagt	180
acataactg	tgaattttct	ccttcggcat	ttcaaccact	tggaatggcc	actaaagtgg	240
cttttgatct	aaagtaaact	ctgattctgt	gttgatgggg	aaccatttct	ctctaactg	300
gtggtttctt	taagatgttt	gacttgggcc	acatgagaat	aacagatctt	tgggcagtc	360
aagcaagagc	ctcctgatct	agcagccaag	actccccctg	acctttggcc	atgtacccca	420
accctctcat	ctactgcacc	tgctgggacc	cctggaactt	gggaccacgg	aagctaata	480
agaccctca	actaccacgc	aagaactcca	caggagggttc	caagctaact	cctcttctac	540
cagtcctaaa	aaatcacat	tacctccaac	caacaaaacc	tgttggttcc	ccaaaaatga	600
aaatccattc	agcaaggcaa	gaagagacta	ataaatcatt	ttatgtgagt	aaaggcagga	660
gagggcggtg	acactaaaat	ttattgagt	cctactatgt	gcaagcatgg	gccctttaca	720
ttttataact	taccttgctg	aatcttcaca	aagatcctgg	gaggaggtgc	tgtaaatatt	780
gcacattatg	cacggcagga	agtgatcaac	gtgtcacctg	gctatcaact	tggtcggaat	840
cgggaacaga	tttctgtcac	cttaggggat	gagatgtttg	ataggaaaaa	gcggtgggaa	900
tcggagatcc	cggacaaagg	cagattttcc	aggaccaaca	tcatttctga	cctagaagag	960
caaatctcag	agctgacagc	aataattgaa	caaatgaaca	gagaccacca	gtctgcccag	1020
aaattgggag	ctcaaagagg	cccatgaagc	agaactcagt	gagttggaga	acaactacga	1080
agcagccttg	aaggcagaga	agttggctgc	ccaagagaag	ctagaggaga	tgggaaaaga	1140
atacaagtat	ttgaagaata	tgtttcgtac	gtatcaggac	agtatttatg	atgaaatgga	1200
agagaagtgg	tcaaaacaga	aggcgagatg	gaagaaggat	gagaagtctg	agcgagaaaa	1260

tatcctgcta cagcaaaaaa aaaagatgac caaaaaattc gaaatggagt caggagaaga 1320  
 agataagaaa ataaatgaat cctgcagtgc tgtctttgag aacttcattc aagagaagga 1380  
 ggagctcttg aaacaacatc aaagtgcac cttgcaatta gaagagctga gaaaaaccaa 1440  
 agagtccagg tgccctggag aagagaccaa ataaatagac attggcatga tgtcctgcaa 1500  
 cagcttcttc ttatgcaggt catgcaggaa gaattgcatg cacaagccct taccctagag 1560  
 tcaactgaaca caaacctcta ctatacccag ttggaactcc agaaagagaa agctatagtg 1620  
 ggaaatctgg agaaaatgct tcaaaccaag tttgctgaaa ctgaagaaaa gtataagcac 1680  
 accatacaga tcctgacgga agagaacatt catctgaagc aaaagataat ttctaagaat 1740  
 gaagaaatth gtgaaggatg ttctgggaga ttggcctcta ttactgtttc taaggatgat 1800  
 tctgacactg tgcaagatgg tagcaagaaa ggacaagaat cataaacaaa aagttgctct 1860  
 gcattgttga agatggttgg cacaccatth ctgtaggccc aggaaactcc tgggagggtt 1920  
 ttcttgagaa aatgcatata atgagtttag ttcttgggtt gctctgactc gctgaatgtc 1980  
 tgaaaatgth tgaattctca tctgaatttc acagcttacc acggactctt cactgaaaaa 2040  
 tgatgctctc catactggga gctgagctth ctctg 2075

<210> 1443

<211> 1956

<212> DNA

<213> Homo sapiens

<400> 1443

cctagcctca agcgatactc ccgcctcagc ctcccaaagt gctaggatta cagatttgag 60  
 ccaccatgcc tggcctcatc tggtcattct aaatagtatt cccaccacac cccaaaacat 120  
 ctccctattc acttgthttg ttttgthttg tttttgagat ggagtctcac tctattgccc 180  
 agactgaagt gcagtggcac aatcgtgact cactgcaact tctgccttct gggttcaagc 240  
 aattctcctg cctcagctc ctgagtagct gggattacag gcgtgcacca ccatgcccag 300  
 ctaattthttt tttttthtga gatggagtct tgctctgttg cccaggctgg agtgcaatgg 360  
 catgatctca gctcaccgca acctccacct cctgggttca agtggttctc ctgcctcagc 420

ctcttgagta gctggaatta caggtgcatg ccaccacgtc tggctaattt ttgtattttt 480  
agtagagatg gggtttact atgttggcca ggctggctc gaactcctga cctcaggtaa 540  
tctgcctgcc ttggcctccc aaagtactag gattataggt atgggccact gcggctggcc 600  
aatttttgta ttttcagtaa agacagcatt ttgccatgtt ggctaggctg gtctaaagtg 660  
acctggccta agtgatcggc ctgccttggc ctaccccagt gttggtatta caggcataag 720  
ccaccgcgcc cagccctccc tattcacttt gctactcccc ttgacttate tgcattctga 780  
tggccaccct atctttatat tccaggacac catggatacc cagggaccag tctcccagcc 840  
ttttcagcag cctgagaaac ctggctcgtg cgcctcgtcg aagactaggc gggaacgtaa 900  
caaggccctg gtgggcagcc gccggccatt agcccaccac gatcctcctg tggccattcg 960  
ggatccacct gtggtcccta ctgcctccaa gctcgtggtc ataaccagg gccggctgag 1020  
ccgggagcac cggggtctct tcaaccacga ggtgaaatcc ctagatgttg caaggctgct 1080  
tagcagtggg accctggtgc caggcagccc cacactcccc gccaaagccct cccaagccc 1140  
aggcagggcc caggaaccag cccacggtc cagggacaaa gagaaccagg tgcctggagg 1200  
ttcgggcca ggcccacca gttccccaga gttgtctggc gtggggcagc tgctggcaga 1260  
gctgcagtgt cagctgagtt tgccacaggc cttcccccg aggaacctga ttcaggatgc 1320  
cagggatgcc atcgtgcaca ccttgcaggc ctgtcatggt tgtgtgcctg accttgcct 1380  
ggtgcttcgg ggctgccagc cacccttgcc aggggccaag cctgggggtct ctgagagaaa 1440  
gatgacaccc ttctggatta atagccctga tcaagtccca gagcaggaga ggcaaaggaa 1500  
gcaacaaggg acaaaggagt tcacctccc catgccctac acctccagca tgcccactgc 1560  
gcacaggggg agtctggcac cgccaagagg tccctggcca ccatactttc cctcactgtc 1620  
ttcgccatct ggaacagcct ggggtcccc aacagcgttt gacttgtaa aaagcatctg 1680  
gctggtagcc acgccacccc ctctcggcc ctggggggtt ggcctccctc agcccctgcc 1740  
tcagccttca tcacctgtg tgcgccgaac ctctgtcctg gactggagcc ccagcccccc 1800  
ttccccactg cccagcctct cctgggtagt agcccagagc agtccggaag cctggtcttt 1860  
tccacccatg agactgtact gaggagaggc tgaggctagg gctggggaca gatatttgt 1920  
actcccagtg acctcaataa agtacttttc atggtc 1956

&lt;210&gt; 1444

&lt;211&gt; 2391

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 1444

agttggagag gaggacttca ggcgggtggg acaagagaaa ctgaatctga ggtccttggg 60  
gagaagcagg ccctggagtc ctgggcagca gatgccaggc tctgagcccc atgactgctg 120  
accctcctcc cctccctctc atcctcagcc cagagtgaaa gtgtccccag gccaaaagcc 180  
cagggtcca ggctgccatc aggatggtgg gtgaaggacc ctaccttacc tcagatctgg 240  
accagcgagg ccggcggaga tcctttgcag aaagatatga cccagcctg aagaccatga 300  
tcccagtgcg accctgtgca aggttagcac ccaaccggg ggatgatgcc gggctactct 360  
ccttcgccac attttcctgg ctcacgccgg tgatggtgaa aggctaccgg caaaggctga 420  
ccgtagacac cctgccccca ttgtcgacat atgactcatc tgacaccaat gccaaaagat 480  
ttcgagtcct ttgggatgaa gaggtagcaa ggggtgggtcc tgagaaggcc tctctgagcc 540  
acgtggtgtg gaaattccag aggacacgcg tgttgatgga catcgtggcc aacatcctgt 600  
gcatcatcat ggcagccata gggccgacag ttctcattca ccaaaccctc cagcagactg 660  
agaggacctc tgggaaagtc tgggttggca ttggactgtg catagccctt tttgccaccg 720  
agtttaccaa agtcttcttt tgggcccttg cctgggccat caactaccgc acggccatcc 780  
ggttgaaggt ggcgctctcc accttggttt ttgaaaacct agtgtccttc aagacattga 840  
cccacatctc tgttggcgag gtgctcaata tactgtcaag tgatagctat tctttgtttg 900  
aagctgcctt gttttgtcct ttgccagcca ccatcccgat cctaattggc ttttgtgtgg 960  
cgtacgcctt tttcattctg gggccacag ctctcatcgg gatatcagtg tatgtcatat 1020  
tcatacccggt ccagatgttt atggccaagc tcaattcagc tttccgaagg tcagcaattt 1080  
tggtgacaga caagcgagtt cagacaatga atgagtttct gacctgcatc aggctgatca 1140  
aaatgtatgc ctgggagaaa tcttttacca acactatcca agatataaga aggaggggaaa 1200  
gaaaattact ggaaaaagct ggatttgtcc aaagtggaaa ctctgccctg gcccccatcg 1260  
tgtccacat agccatcgtg ctgacattat cctgccacat cctcctgaga cgcaaactca 1320  
ccgcaccgt ggcatttagt gtgattgcca tgtttaatgt aatgaagttt tccattgcaa 1380  
tcttgccctt ctccatcaaa gcaatggctg aagcgaatgt ctctctaagg agaatgaaga 1440

aaattctcat agataaaagc ccccatctt acatcaccca accagaagac ccagatactg 1500  
 tcttgctttt agcaaagcc accttgacat gggagcatga agccagcagg aaaagtaccc 1560  
 caaagaaatt gcagaaccag aaaaggcatt tatgcaagaa acagaggtca gaggcataca 1620  
 gtgagaggag tccaccagcc aaggagacca ctggcccaga ggagcaaagt gacagcctca 1680  
 aatcggttct gcacagcata agctttgtgg tgagaaaggg gaagatcttg ggaatatgtg 1740  
 ggaatgtggg aagtggaaag agctccctcc ttgcagctct cctaggacag atgcagctgc 1800  
 agaaaggggt ggtggcagtc aatggaactt tggcctacgt ttcacagcag gcatggatct 1860  
 ttcattgaaa tgtgagagaa aacatactct ttggagaaaa gtatgatcac caaaggtaat 1920  
 attaactttt aaagcaggag gcacatttgt gtttggatca cactctccta cagatgctga 1980  
 tgctgttggg aatgactgct aagtgggttc tgagttaa gaattctgat taaacattca 2040  
 tcagatccac acagacactg gttttcctct tcctgagcca agcggtcagg agaggcgact 2100  
 tctgcagacc tgcgactgca cactgggaag aggatagaat cggcacttca ttcccagggc 2160  
 agaggagcat atgttccgag gttctctgca acagggcata tgtggtctga ctagagaaaa 2220  
 gtgaatccag caattttgct ttaggctgag tacccaaaac tgctcagaat catgagcaag 2280  
 tatgtaatga atcagccctg acattattaa ttgacatcag agctatcagg atatattatc 2340  
 actgttagtg tcctcagaat ggtctaacta aataaaaaca aagctcaact t 2391

<210> 1445

<211> 1639

<212> DNA

<213> Homo sapiens

<400> 1445

aaaacaaaac aaacccgagg cagcatggag aggggccgtg gccctgcag cggaaccgga 60  
 cccagtccct gagccgcccc tacaccaca gacagcatcg cacagaatta ttttaaaaaa 120  
 aagcagtgat ccaagcaatt gaattggaag cactctgggg aaacctgctg ttattgtgg 180  
 aatcatctt cgatcttgga attgaaagta aagctggaaa ggaatttaca aacaagaaaa 240  
 aaaagaagtt tggaatcgga ttcacaggat ctgggcttgg aatgcctca gcctagtgtg 300

agcggaatgg atccgccttt cggggatgcc tttcgaagcc acaccttttc ggaacaaact 360  
ctgatgagca cagatctctt agcaaacagt tcggatccag atttcatgta tgaactggat 420  
agagagatga actaccaaca gaatcctaga gacaactttc tttctttgga ggactgcaaa 480  
gacattgaaa atctggagtc tttcacagat gtcctggata atgagggtgc tttaacctca 540  
aactgggaac agtgggatac atactgtgaa gacctaacga aatataccaa actaaccagc 600  
tgtgacatct ggggaacaaa agaagtggat tacttgggtc ttgatgactt ttctagtcct 660  
taccaagatg aagaggttat aagtaaaact ccaacttttag ctcaacttaa tagtgaggac 720  
tcacagtctg tttctgattc cttttattac cccgattcac ttttcagtgt caaacaaaat 780  
cccttaccct cttcattccc tggtaaaaag atcacaagca gagcagctgc tcctgtgtgt 840  
tcttctaaga ctctgcaggc tgaggtcctt ttgtcagact gtgtccaaaa agcaagtaaa 900  
cccacttcaa gcacacaaat catggtgaag accaacaatgt atcataatga aaaggtgaac 960  
tttcatgttg aatgtaaaga ctatgtaaaa aaggcaaagg taaagatcaa cccagtgcaa 1020  
cagagccggc ccttgttgag ccagattcac acagatgcag caaaggagaa cacctgctac 1080  
tgtggtgcag tggcaaagag acaagagaaa aaagggatgg agcctcttca aggtcatgcc 1140  
actcccgtt tgccttttaa agaaaccag gaactattac taagtccct gccccaggaa 1200  
ggtcctgggt cacttgcagc aggagagagc agcagtctt ctgccagtac atcagtctca 1260  
gattcatccc agaaaaaaga agagcacaat tattctctt ttgtctccga caacttgggt 1320  
gaacagccaa ctaaattgcag tcctgaagaa gatgaggagg acgaggagga tgttgatgat 1380  
gaggaccatg atgaaggatt cggcagtgag catgaactgt ctgaaaatga ggaggaggaa 1440  
gaagaggaag aggattatga agatgacaag gatgatgata ttagtgatac tttctctgaa 1500  
ccaggtatta taatgcttgc aagcttacca gactgacctt tgtattacta ttttgaaata 1560  
gaaaggtttt tgtttctgtt ttgtttggat aatttcttta ttttagtttg ggaattaaat 1620  
gacttaaacc ttggattgg 1639

&lt;210&gt; 1446

&lt;211&gt; 2047

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 1446

attaaggcca	cgccccctttt	ccgcatttcta	gtgcagccct	ggtgacgcct	cctgtggctc	60
agtcacatag	ctgtgtggta	catgactgga	ggcatatcac	tgtcctcgcc	tggatcacgc	120
caatgtgacc	ccaacccac	ctccctcccc	accccatgat	gtccgaaaaa	accaacaaa	180
gaaaattggc	tgggaccaag	agaaagttca	cagactatca	tcagtggaac	agtgctggtg	240
ttggtactgg	agcaaccgac	acaaaaaga	agaaaataaa	taatggcact	aaccctcaga	300
caaccacttc	tggggggctg	ccattcacct	gaggataaac	aacagaaccg	agctcagctg	360
aaagaggaaa	agaaggcaag	ccaccaacat	cagcaagccc	taaggaggca	gctagaggcc	420
caggatcata	ccatacgaat	ccttaagtgt	cagaaaactg	aactggaaac	agtgtccat	480
gacagccagg	atgctgccag	gaaatttgaa	gaagattcca	aggatctggc	aggccgcctg	540
catcattcct	ggtactttgc	aggagagtta	cagcgggctc	tctctgctat	gtccgcagag	600
cacaagaggg	cggacaggta	catcaaggag	ttaacaaagg	agagggaagc	cctgagtctg	660
gagctgcaca	ggaacatgta	ggatggggga	gcgggggatg	ggaggtctga	gagcccttag	720
catgggtggt	gtgctgggag	gtggtgggta	caggtgagca	tgctaggggg	tcatacaggt	780
ttacatgtgt	gcgcagggaa	gctccagtga	tggctgtgcc	actgactcat	ggggtagcct	840
caggcaactc	acgtcttctc	tctggcctgc	cacctgggac	ttttaattcc	tggggtcctt	900
tccaatgcc	tggttctgtg	gttgtggggc	gagggtagag	ggtcgatcac	caaagcggtc	960
ctttctgttc	ttegtcatt	cctttctcta	ctgcctctgg	ccatggcata	accaatgagg	1020
agctgaagga	gaaaaatgcc	gaactacaag	aaaaacttcg	actggtagaa	actgaaaagt	1080
ctgagatcca	gctccacatc	aaggagctaa	aaaggaaaact	ggagacggac	aaaatcccgc	1140
tgccacaggt	tcaaaccagc	actttgcagg	agaagatgtg	gaggcaggag	gaggagctac	1200
gggatcagga	gaagctacgg	aagcacgagg	agaagacgtg	gagacaggag	cagaggctgc	1260
gggaccagga	gaaggagctg	cggaagcagg	agaagcagat	gctgaagcag	aaggagcaaa	1320
tggcgggagca	ggaggaacag	atgcagaagc	aggaggagca	ggtgcgaaag	caggaggagc	1380
aggtgcggaa	gcaggaagag	cagatgtgga	agcaggagga	gcagatgcgg	aagcaggagg	1440
agcaaatgcg	gaagcaggag	aagcagatgg	gggagcagga	ggagcagatg	cggaaacggg	1500
aggagcagat	gcggaagcgg	gaggagcaga	tcacgcagct	gccccctgga	atgaagaaca	1560
cccaggagca	cccaggctta	ggcagcacct	cctgcatcct	attcttctac	cgaggagaca	1620

agaaaaagat caagatcatc aatatctaaa aagaacggtc aacaaggcct acagaagtgt 1680  
 aagccgccac gtgaccttgt gaatacagtc tgagaacaaa cttgaaaaaa agaaaattta 1740  
 ttttaaattg tggcaaaata ctggccgggc atggcggcct gcacctgtaa tcacaccact 1800  
 ttgggaggcc taggcgggtg gatcaccaat cctaggtacg tgggaggctg aggttgcagt 1860  
 gagctgagat cacaccactg cactccagtc tgggtgacag agtgaaactc ccatttcaaa 1920  
 aaaaaaaaaa aaaatttcta cctgaggact ctaatatcta tgtatgtttc tattgttttt 1980  
 tttgtttgtt ttctccttc gtcttgtctt gtcttatggc gtgcctagta aagttttatc 2040  
 tgcctcc 2047

<210> 1447

<211> 1911

<212> DNA

<213> Homo sapiens

<400> 1447

tttcgggcgg agcatagggg acgatgggtg tccttccccg gggaggaggg ctcgggcagc 60  
 tctcggcggc ccacaggaaa cgggaggctg cggtcccca gggcgttgcc ctacagacca 120  
 caccgcgcc aggaccggg taagcagaag gaaatgacc cgcccatgag aacacagggc 180  
 actgagacaa agtccaagaa agctctaaga gtggaggga gcagcggagc aaaaggaaga 240  
 gtcagagcga caccgcgcg gcggcatttc caaacagacc tgccagcgcc aagaaacagg 300  
 tcgcgcccc catccagctg catcctggac ccacgcaga cgcggagcag gaccacctc 360  
 ccacgcgctc ccaaaccct caccgcaagc ggagcggctg aactgacca agtcccacac 420  
 agcctgggac tccaaggctg aagccgccg ccgtcacc tccgcgaggc tctgacggac 480  
 ggcgcccttc ccaggctcgc gagcactccc cgccaacggc taccatcgc ggtccgcctc 540  
 ccaggcattg ggcccgcagc gactcccgcc tgcaggccca gaggcacagt cgctctccca 600  
 gtccccgagg ggacaagaga cacctgcagc acggcaatcc cctacacctg tgaggcccc 660  
 taagcccga agggccccta cacctgtaac ctcccttcac ctacaagatc cctgcacctg 720  
 caaggacccc tacacctgca acttcctac acctgcaatc tcctacacc tgcaacctcc 780

gtacgcctgc aacctccttt cacctacgag atccctaacc ctgcaacctc cttacacctg 840  
cgtgagcgtc accccggctg aggcgctggc agaaggcggg gcgggtggag ctttcgccaa 900  
cgctctgggc cccctgagtg ctgcatgcca gtectaccag ccgctcggtc atctgccacc 960  
gcccagcaat ggcttcagca tgcagtcctt gctaggggac tccaggaggagg agcatcctgg 1020  
ccagggtctg tgccacagag cagcccagct tctgcaggca gggaactgct gctaaggaag 1080  
aaggcaagtg gcttctatct cttcttatca gatcctctta ctgactcttt tgagctctaa 1140  
aaatttttca gctgtttcta ctggactctt tcaggaagac aattgtatct gtctaataatg 1200  
aacacttcta attatttttag acttttttgt cttcagctaa ggccttcaaa ccttaataacc 1260  
acagaactcg gtcacagact gcagcagcca ccactcgtct atcgcttggtg taccaacagg 1320  
actgtgccat caacagaaac accacagagc tacatcaatg ggggtgctgt gaaaaccggg 1380  
tcaaaacagg caaatggatc tacataacca aaccgaaaga gagcaacgta tgcacaaatg 1440  
gcaataaatg aatttcagag tcttaaattgt cagaaatcac cataagcatc agcatcagct 1500  
cagagacttc tggaaaaaac agcaggaagc aataacgttg agttaacaac tgaaactttt 1560  
tcagggtggac gaccggagag cccagccaga gcctgtgcca ggtacctgcc cgttgtggtg 1620  
tcggccctgc cctccagggc cgagcccttc tcctgcccgg ggactgggtgt cacggtcgag 1680  
gtgggtgtctg ctttagctat cgtcacctct ttggccttgg agctctctc cccacagtgg 1740  
ggacaatagc tggcgttatt gactcgagag gcacagtctt tgtggaaacg gtgagagatg 1800  
ctgctctcgg gctgacactc cataaaatta ccctaaaaat gggaggacaa aaaaaattt 1860  
ttgttttaat tggggttaat atttagaaaa ataaagtact actaaactgg c 1911

<210> 1448

<211> 2491

<212> DNA

<213> Homo sapiens

<400> 1448

attcaacaca agagggtctc cctgtccagc ctttcctcc ctcctccat caggcctcag 60  
ctgagcccaa agtggaacc ccgtttctc tgggatctga gaagtccaa ttctttcttc 120

caactctgaa tcccaggctt aactagacaa tggcttttgg atccttgtgc cagcccttcc 180  
acccccccat acacacataa gtccagccaa gcacccctca gaattcaagc ccctccccta 240  
agactcacia tcagaaggga ctgcctatgc ctctgagccc caccaccaaa ccaagcacgg 300  
cctggaagaa agccatcctg gagcatgcac acacacacac atacgcaagc acacacagcc 360  
agacgtgcag aaacaggaat ggttacacat acacgggtccc ggagcacaga cctgcccgtg 420  
gacacacagc cagccagact cgcaaacagg tccttgcagc tacacacaaa ccatcctcaa 480  
ccgtgagccc gcacaccacg gcatgcgtgt tcatgcatgt gcacaaacat ccacagagcc 540  
ctgctccctt ggtcttttagg agcatctgag accccaactg aggcgaggact cggcccctgc 600  
cctatggcac tcacactcct tggacatgcc cacttcaaag cacttctgca gtcggcagta 660  
ctggcagcgg ttccgggtca cttgtttgat gatgcagttc ttgtcccggg gacacgtgta 720  
caccatgttc ttctggatgc tgcggcggaa gaagccctgg gtatggaggg gagggagtca 780  
ggttgtccac acccacagtg ggagcagtgc ctggctacgg tctcagtcta ggggaggagg 840  
gccaggccag ctgctgcccc caagcgtttg cccatcgcct acctgagcag gccagaaaag 900  
ctggggagaa tgattcacct aaaaggatcc tcctcaggag aatcccagta cctgcctcaa 960  
cactgcagga tgggcaggag tcttccccca acccacagca cacacctgac tcctcccttc 1020  
cagggaaaag acctcagggc tgctggtgag tcagaaatag gaagacatgg ggctaactgg 1080  
gcaacagcca gggatctgga acccacaccc ctgaactcag aacacaggaa aagaagacaa 1140  
gcccgaagag gccaggaggc agatacacgg gctggccaga gaaatggagg cgaacacaca 1200  
catgcactca ggagcaaggc agaaagatgt gagttcacca agacaggtgt gcaccgaccc 1260  
atcacagaca cagaccagg ctggccaggg gctccacata caggctgacc agagggacag 1320  
gcggacagag gaagaacaga ccaggaacaa ccagacagga caggcagaca cacagcctga 1380  
gtccttgtgc ttgtcccctt accctccgtcc cacatctggg gatagctact ccaggctgaa 1440  
gagcagccca gagctgcaag gccc aaagct gtgaagattc tgagcccaa tctctggagg 1500  
aagaaacgca cacagaggct caggccccag ggaaaggagg agaagccggg cgcagggctg 1560  
ctaaggacca ggtatacctg caccctggca cctaactgga ggatggggaa atccagccag 1620  
aactggggga gccacagcc cgggcacctg aagggggaagc taaggcaggg tgcctgctcc 1680  
taactgcctc ctgccaggct gccatggtga gggttcaggca gggccgccgg gggaggcctc 1740  
ctgggtcccc agccaagagc cagtcggcag ccagctcacc atggcaacct gggcagcggg 1800  
ggcagagcag gcgtacgccc tgccagctgg aggatagaga cagggaagg agctgaggca 1860

ggaggggacc tctggtttga gggagccctg cacatttatg ggggaggacc tgtggggaaa 1920  
 ctgtggtagg tgtccctgct tgctgccaac ttccacagag aaagaagagc agcaacttca 1980  
 gggacacccc ccaactgcac actcccagga cacagaagtg gggacatccc attgacctca 2040  
 tcaagctgtc cttcccaatg accccttcaa ctcaccttgc agccctcaca ggcgctgacc 2100  
 ccatagtggc agcctgagga cttgtcctga cagacaaagc aaggcttgta gatgcggggt 2160  
 agaggggggtg gcgaggagg gctgggcact atctcttcag aactgctgct ctgggtctca 2220  
 atggctagag agagaagagg ggaggggcag ttagagacct aggtcgccat ccttagtacc 2280  
 aagctccacc ctgcctcacc gtccctccta agagcctctc ccagcctcac cactgctggc 2340  
 aggattcaag tcttaagaaa actgggactc ccagccaga ctcagggcag gaggctgcca 2400  
 atgaagcctc cagcacccca tcactcctct ggactcctag gacccccacc ttcaaaacca 2460  
 caaagataca atgataaacc atcacatttg t 2491

<210> 1449

<211> 2678

<212> DNA

<213> Homo sapiens

<400> 1449

acaatcatgg cggaaggcaa ggaggagcaa gtcacctgc agtgattgtg aggtctcccc 60  
 agccacgtgg agctttttgt gcggggatcg gcttacatgc cgtgcctgag agcgctcgat 120  
 gaagaccaga ttctcagggg tgccgcgcgc ggtggggagc cagcaccaag cctccctcgc 180  
 ctttgcaaac cctggggaaa tcctctccag cctgcgtctc ccaacaacaa tagcctttga 240  
 cttgggaaaa catcctgttg aatttcacca aagcctgcaa catacatgtc tagaagaaca 300  
 tctcactgct tgcttgtttc aaagaccttc tccaaatgaa aagcaacatc acgaaataaa 360  
 tccagagtgt gcagagtgga gactccacta catgcatcca cagccttggg gtcgccggca 420  
 gggctcactgt ttctcatgca aagaaaggca aacaaacgct tagaggcatc ggacacattac 480  
 tcaaggctca ccaaggtgct cagagccagt gtgagaaacc ggggctcca attcttgccg 540  
 agtgctcatg ccacactctg cgggctgtgc acacctgggt ctctctctc tatcattctg 600

gtgtaactct gaggtcccca aaggcaggat gttgggtgtc cagggggagc cccgaggaac 660  
tgagcactag gggcagcctt ggctttactt tttctgtgtt acatgaaact gataagaaag 720  
aggtcattgg tttggactga actcctgccc taggctccaa cagaccaaac caaaatggag 780  
tctctcgtgc taagattcac atcacaaaa agaaactaag atccttatcc gacctgtga 840  
gaaatccggg gagagagaca atagccaaac tggccagttt tagcctgcat gatgaagaag 900  
ccatcctctg cttcaacctt tacaagaaaa gtaactttga aatgaccaat tggctttttg 960  
ttctctgtgt tagcttttct cagtcctttt ctgccttcaa aagccaacct ccactacttg 1020  
gctcattgca aactcatga atatagggtc tcgctctgtt gcccaggcta gagcgcggtg 1080  
gtgcaatcaa agctccctga agcttcaaac atctgggctc aagtgtcct cctgcctcag 1140  
cctcccaagt agctgggatt acagggtgcat gacaccacac ctagcaaatt tttaaaaaat 1200  
gtttttgtaa gatggggcct agctatgttg cccaagctgg tcttgaactt cttggctcaa 1260  
gtgatccttc caccttgggc tgccaaagtg ctgggattac agatgtgagc cactgcgcct 1320  
ggccttttat ttattttatt tttttctgag gcagggtctt gctctgttgc cgaggctggg 1380  
gtgtaatcgt gcaatgacag ctactgcag cctcagcctc ctgagctcaa gtaatcttcc 1440  
cacctcagcc tcctgagtag ctgggactac aggcattgcac caccacacct ggccaatttt 1500  
ttgtattttt tgtagagacg ggattttgct atgttgccga ggctgggtct gaactcctgg 1560  
gctcaaggaa tctacccttc ttgaccttcc aaagtgtggt gattgcaggc atgagccact 1620  
gcatgtggcc agggttaaat acctttaaga ggctcagccc agcgcctggg tttcaagggtg 1680  
ctcagtacat gttagtcaaa atagggtgaa cttgacacag gaggagcctc ccgctccctg 1740  
ggtcacatgt catgtttcca gaactatttc tgtttgtgtt ttttgagatg gagttttgct 1800  
cttgccacc aggatggagt gtaatggcct gatcttggct cactgcaacc tctgcctccc 1860  
gggttcaggt gattctcctg cctcagcctc ccaagtagct gggactacag gcacacacca 1920  
ctgcaccag ctaatttttg tatttttagt agagacggag tttcaccatg ttggccaggc 1980  
tggtctcgaa ctctgacct caagtgatct gcccgcctcg gcctccaaa atgctgggat 2040  
tacaggcgtg agccattggg cctggacttt attcttctac tttcttaata aacttacttt 2100  
cgctttacag actcaccctg aattcttttt ttttttttct tttgagacag ggtctcactg 2160  
tgttggccag gttgaatggc actatctcgg ctactgcaa cctccacctc ccaggttcaa 2220  
gtgatcctcc tgcctcagcc tcctgagtag ctgggattac aggcacgcgc catcacgcct 2280  
gggtaatttt tgtatttttg gtagagatgg gtttttgcca tgttggccag cctggtgtca 2340

aactccaggg ctcaagtgat ccatccgcct tggcctccca attacagggg tgagccaccg 2400  
ccccgtcca agaaccctct cttgggggtct agatctgcac ccctttcctg tggagtttga 2460  
agaccccaca gaggaagagg atgagcgtag aacacagctt cttcccctct cagtcccagg 2520  
acctcgccct gcactcttcc acccatcaac catctccaca cttcagccca ctccaaaacc 2580  
cccaaaccac agccccaac tcctcaggga gatagatttg aggtttcctc ccatctcctc 2640  
atttagtgac gctatgatta aacctttttc tctgctgc 2678

<210> 1450

<211> 1705

<212> DNA

<213> Homo sapiens

<400> 1450

agcgcaggga acggcgggag ccgggaggtg acggctagca gcgtgagaag gccgctggct 60  
cctgagaaat cccctcctc caggtggttt tgtccttttg gaccaattat ctaacctggg 120  
cctggactcc atctaccact gtctgcctg gttcactgca gtcacttca tcttctgtg 180  
ccttctctga aagggcccct caaaagtgtt cctgggtatg tcccctcaag agatgggggtt 240  
tcaccatgtt tccagggtg gtctcgaact cctgggacct caagtgatcc gccacctcg 300  
ggctcccgaa gtgctgggat tataggcgtg aaccaccgtg cctgaccagg atgatgggaa 360  
tttttaatgg gaaggctgtg acacaacctt aaagaggcac cattagttag gcaagcaggc 420  
agaagtcttt ggataggagg agcaatgaac ctgggagaga gcatcgagca ggggcacatg 480  
tgagaaacct gcttcggaac ctattagagg cagaaaagac cctgggcaag tccagttccc 540  
atggatcagg cattccttgg attgtccgcc ctgcatttgt cttctctctt tcccttttcc 600  
ttgcagtacc ccaggctcc cactcctgtt cccggaacca agctagggtcc ggctgcattt 660  
tctggaggct caataacaag aagcagacaa actaggaaag aagggaattg actactatag 720  
ccgatacag ggagaaggcc ggagataatt ccaccagacc aactcaaaag tgttaaaatt 780  
ttcttagtgc agtctagcat tcgcctaagt ctattggtaa ctaattttgt ttcagctaga 840  
aggtcagagg caaaaaaag aaatgctaag tccgattaaa agggccccag taccttcaag 900

gcctgtctat ggtggtacgg agtgattatt tctatcttat ctctttttaca gcttgggtctg 960  
 gagagctgcc ttagacttcc caatgaattt attaaaacag ctgcctctgt aaccttgact 1020  
 tgtctcagat tttgtcgacc tgagatgggt cctggcacta ggaatgtaaa actgtctcta 1080  
 ttattttggg ttgctccagc aaggggagaag cccatgcaag gctcctactg actgtatgtt 1140  
 tcattttctag cttggatgtc tcagcaccga tttctctagg tttaactatt tgctcaatgt 1200  
 tcaggcagca ctgtggaaat ctgtctgtgt aacgggtgct acgcaggcct gtctgtgcga 1260  
 ctgtcatgca ggcctgtctg tgcgattgtc agggagaatt ggcctgccac actcccactc 1320  
 atttctgcat tctcattaag gcatattaag gattagaaag ggattgctag gccaggcctg 1380  
 gctagtcttc tttaaatgga actttcagaa agaaagggga aaaccaaac aatttcccc 1440  
 ttcaactttt taactgtgtt tctcttgggc caaagacctc ttagggatat cccccgggag 1500  
 ctctttttgc gaaggatgtt ttgtttttcc tttgtgaata gggactaatt cattcattaa 1560  
 agcaacatct actgagcttg tattacaggt aagcactgct ccagggtgctg gggaaaacgg 1620  
 agtgaactga aatcacaaaa accctgcagc gctcatgcca tgtacgttct attgaggaaa 1680  
 acaagcaata aacaagatta ataataat 1705

<210> 1451

<211> 1946

<212> DNA

<213> Homo sapiens

<400> 1451

aaaaagcgtg cgcctcggcc ttctaggggt accccaaggc agacagaagg cccatgaggg 60  
 aaagggtgcag cagtccatct ggtgcttgag tgtcaacctt aggcctgatg tctatgttgg 120  
 accttggggtt cacctgaggc ctgatatcca cctggggcct caatgtccaa atggggcctg 180  
 atgcccattc gggctcctggg tgtccacctg cagcatggat gtccactggg actttatgtc 240  
 caccaggggc ctaatgtcca cctaagacct ggtgttcacc tggggctctga tgttcagctg 300  
 aagacaggat gtccacctgg aaccgaggaa tccaccagg gactggtgtt gaactggggc 360  
 ctgatgacca cccggggaca aggtacacat caggcttgtt gtccacctgt caccagatgt 420

ccacctgagt cctgatgtcc atcttgatcc tgtttgtcca cattaggcct gatgtccagc 480  
 tggggcctag gtaccactg ggggcttcct gttaacctgg ggactggtgt cattctgggg 540  
 cctaatagacc acctgggttg tattattcac ctagggcctg gtgtccactt ggggcttgag 600  
 tgtaaccttg gacctggcac ccacatagga ttgggtatca aactggcccc ttggtgtcca 660  
 gttaagacat catgtgaacc tggcgctga gtgtccacat ggggtccaaat gactactggg 720  
 ggcctgaatg tcaacctaga atctgaggtt tactaggggc ctaggtatcc acctggggcc 780  
 caatgtccac ctgagcctgg gtgtcaacct ggggcctgat gtaaacctct agttcactat 840  
 ccaccttggg cttaatgtca acctggagcc cgatgtccac ctgagtactg atgttcacct 900  
 ttgacctgat gtccacctgt ggactgttta tccacccatg gcctgatgtt cacctggggc 960  
 tgaatgtcca actgtgacct gttgtgcacc tggaacctag gcatccacct gcagcctgat 1020  
 gttcagctgg gctgggaccc ggagttcacc tgaggcatga tgtccacctg aagcttgatg 1080  
 ttcacctggg ggctgggtgt ccacttgggg cccaatatcc acctggagac taggtacca 1140  
 cctgggatct ggtgttcact caagattggt gttcagctgt ggcctaata ga ccacctgggt 1200  
 cacggtgtct accttggaact ggggtgtcac ctggagccag tggtcactgg gggcctagt 1260  
 tgcacctgag actgggggat gcacctgggg cctggtgtct acctggtgcc taggtatcca 1320  
 cttggggcct aatgttcac tggaatctga tatccacctg gggccttgta attacctggg 1380  
 ttctgggcat ccacctaggg cttgagtatc ctctggggc cttgagttt actagggact 1440  
 cgtgtctgcc ttggacctgg gtgtatatct gttgcctaata gtacacctg agagtgatgt 1500  
 caacctgggg acagatgtcc tcttggggtc tgagtgtaca cctggtgtct gatgtctgcc 1560  
 tggggacttg tggtcacctt agacctgata ttcacctggg gactgggcgt ccacgagggg 1620  
 ctgatgttca gctggacact ggatataccac ctggggcttg gggatccatc cagaaactga 1680  
 tgtcaaaactg gggcctgatg tctacctgcg gactaggtat ccatgtgagg cttgatgttc 1740  
 atccacggcc agacgtccat ctgatgcttg atgtccacct tactcctggg tgtctactag 1800  
 agacctcatg tccaactaga atttaggaac ctactggggg cctcgtgtaa acctggggac 1860  
 tgggtatgaag ctgggtccta atgatccct ggggtcatatt attcacctag ggcctcatgt 1920  
 ccacttgggg cttcagtgtc aacctt 1946

&lt;210&gt; 1452

&lt;211&gt; 2555

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 1452

acttccgttc caccatcgct gctggagcag ctgccttcag gccctgcgcc gcctccggag	60
tccatggccg gcacgcgctg ggtactcggg gcgctgctcc ggggctgcgg ctgtaactgc	120
agcagctgcc ggcgcaccgg cgccgcctgc ctgcccttct actccgccgc ggccgctgcc	180
tcccagacgc gtggcctcca gaccgggcct gtgcctcccg ggaggctggc ggggcctccc	240
gctgtggcca cctctgccgc ggccgcggcc gccgcgtcct accctgccct ccgtgcctct	300
ctgctgccgc agtcgctggc ggccggcgcc gccgtcccga cgcgcagcta cagccaggag	360
tccaaaacta cttacctgga agaccttcca ccacccctg agtatgaatt ggccccgtcc	420
aagttagaag aggaagtgga tgatgtcttt ctcatcagag ctcaaggact gccctggtca	480
tgcactatgg aagatgtgct taactttttt tcagactgca gaatccgcaa cggtgagaat	540
ggaatacatt ttctcctaaa cagagatggg aaacgaagggt gtgatgcctt aattgaaatg	600
gagtcagagc aggatgtgca gaaagcctta gagaagcacc gcatgtacat gggccagcgg	660
tatgtggaag tatatgagat aaacaatgaa gatgtggatg ccttaatgaa gagcttgcag	720
gtcaaatctt cgcctgtggt aaatgatggt gtggttcggt tgagaggact tccttatagt	780
tgcaatgaga aagacattgt agacttcttt gcaggactga atatagttga cattactttt	840
gtgatggact atagaggag gcgaaaaaca ggggaagcct atgtgcaatt tgaagaacca	900
gaaatggcca accaagccct gttgaaacac aggggaagaaa ttggtaatcg atacatcgag	960
atattttcaa gcagaaggaa tgaagttcga acacatgtcg gttcttataa gggaaagaaa	1020
atcgcactct ttctactgc taagtatata actgagccag aaatggtctt tgaagaacat	1080
gaagtaaatg aggatattca acccatgaca gcttttgaaa gtgagaagga aatagaattg	1140
cctaaggagg tgccagaaaa gcttccagag gctgctgatt ttggaactac gtcttctctg	1200
cattttgtcc acatgagagg attacctttc caagccaatg cccaagacat tataaacttt	1260
tttgctccac tcaagcctgt tagaatcacc atggaataca gctccagtgg gaaggccact	1320
ggagaagctg atgtgcactt tgagacccat gaggatgctg ttgcagcgat gctcaaggat	1380
cgggtcccacg ttcatcatag gtatattgaa ctgttcctga attcatgtcc aaaaggaaaa	1440

taagactcta ggggctccag ataataaggg tgaagcaaga agcatttcat ttgcacatct 1500  
 ttcttggact tgggatatac agttccagtt tattagcagc aactgctagg gaaatgattt 1560  
 tgggtgttttg ggtaattgc ttctaagaaa agtttcatag tggactgttt agaagaagaa 1620  
 atgaaagatc cagtttggga ttatgaaata aaccacaaat taaaattttt gtttaactg 1680  
 tccaggatct gatttaaaaa tatggtcttt gttttatatg attaaatggg ttgttttcat 1740  
 agatgatatg ttactcattg taaagaccac atatttttat tcagcagtgt tctttaaacg 1800  
 ctttcattta aaaagtaact tttttttttt gcctgtgaat tgagtgtctt gatgtaaaac 1860  
 ttctcatgga gtgaaacagt gatttatattt aaccaaacat tcaccaaagc aaagaacggg 1920  
 ttcagacctt tgaactggta tggtttggca gaatagtttt aaattttgct gtatttgatt 1980  
 acttagagat aggaattttt aaaaatcaaa acaaaaaata ccacagctta gtgtaaatga 2040  
 caatttggcg gttttatgtc tttagaaatg ttttgccttt ctaagccttg tgctaaaggc 2100  
 gtataacggg ggtgcctatc tacttaaggg ggcattctag tcttaactta aaagttgtct 2160  
 aaactgtccc tccctggctt tttttggttt ggggtagacc taagggtgtt tgtagtctc 2220  
 aaaactgtga agtgacatgt cagaacagtc cagactggta agaaaattaa tggcttcact 2280  
 tgaatttaaa ccagctctag ataggaaaaa aatcagtcct ctcatttgct ttttaaatgg 2340  
 agtagtacat cccatatttt agaacaagta ggggtgcctt gcttaataaa aaatagcatt 2400  
 taatgtataa ttgtgtgaag ggtttatgga taaagctgta cttctgtcac aatgtggcag 2460  
 tactttctgc tttaatatta aacagcttgt tatttaataa ttggacaaaa tggctggctt 2520  
 caaaatatag tcattaataa actaacttta tgtgc 2555

<210> 1453

<211> 2291

<212> DNA

<213> Homo sapiens

<400> 1453

gagcgctttc tccatccagc tggccgtcat gccgtcctt gccgagatgg gggttcacaa 60  
 ttttggccag gctggctctt aactcctgac ctcgtgattg tcttacatgt ccgtgtgaag 120

agaccaaaca ggctttgtag gctgtgcatg cctgtgtact gcaagtagca gttccataag 180  
actccagttc acaagaccaa gggggagccc catggaaccc acgtttatct ccaggacatc 240  
aacgtcatct tccttggggc actgcacccc agtgacctaa gggaatacct ggagggcccc 300  
cccatgggtg tggaagttca cgaccgggac cgcaagtcag aggagtgttc tcagaagccc 360  
gtgctgtttg gggaggaccc tctggattca tacctcaact tccaggccct catctctccc 420  
agagagacag agaacaaccc ctttgagtcc cagaacaaga tgtggtaccc ttatggcatc 480  
gcccagggtca gttttgctga cctcctcctt ggccacaagt acttgaatct ggccgtcccc 540  
atccacagct gtgaggttca gcccacacac tgcggccagg acagcaggag aaggaaggtt 600  
gtggggcttg ggggtccccag agatggccac cagcacggcc caatgcccag gggcaactac 660  
ctagaggctg actcccagct caagttgcga gtggacatcg cggtgccact gagggccggg 720  
gccagagctg ctgatactga ccttgggggc tcccagtttg gccgcatcat ctctctcttt 780  
gactttaaga aggtctccct gctccacagc ctgctgcagg acatcacct gatcaacgt 840  
aaggccctcg gcctggactc ctaccctgtc aggaccctgc agcagatcct gtcagccttc 900  
aagggtcgtg tgcgggtcca ggagcagcag cacctggatg tgctcactgg cttccacctg 960  
ctggacggga agacacacct ttctatcctg gaaggcctgg ccgaccaagg cttgaggcag 1020  
ctgtgggaga accaccaaag ctggattccc aggtcagaac acaggaaata caaggtgctg 1080  
tacaactcac agctgctgtt ccgcagccgg ctctatgggg acctggaggc catcctgtac 1140  
cacgtgcacc tcttcagcc caggagctg ctgctgcagc aggcggtgtt cttcctgcga 1200  
gacactgagc ggaggcgggt cttccaggct ctagccagga tccacgacat ctgctataac 1260  
agcaccaccc tctgggacgt gacggtgagg gacctgctgc cctcctctgc tatgataaaa 1320  
gacttgagcc aagagtttgg gatgccccctt tcgcaagaag aactcacaga tgagaaactg 1380  
tttgcctac cacctcagcc tgcccccaat cttgaggact accacagtcg gaactccacc 1440  
ctcaccttag agatccacgc ccaccaggag ccaagaaaga gattcacgta ctcacaggat 1500  
tacctctcag ccatgggtgga gcccttggaac ttgaaggaag aggagaagaa agcccagaag 1560  
aaatcccgcc aggcctggct cacagccagg ggattccaag tgacaggtct tcagagcgac 1620  
accgaaagca gctttcagga tctcaagctg ccacccatca aagagctgaa tgaggagtgg 1680  
aaggaaaact ccctgtttgc taatgtactg gagcctgtgt tggatcgaga caggtggagc 1740  
tgggacaggc accacgtgga ctttgatctg tacaagaaac caccacctt cctcgagctg 1800  
ctcccttcgc ccgcacaaa gcctgtaaca gtcaggaaga agaaaggga cagcccatc 1860

tcctgagcag cacagaccct cccacggcca ccgcatgggtg aacctgcaca gcctcccca 1920  
 caccgacca caccctctc aacaatcaac ttcattaaag tgcagcagga cagatggcag 1980  
 cagccaggcc ctgtgtgagg ctgggctggg ctcacctcgt ggtcgtggtt gcggagccca 2040  
 atgcggatgg agcggctggc ccgcgacagc acggccgtca tgccatacag gttgatgagg 2100  
 atgttgcca cccgcttcag taccagctgc tcctccatga tggctctggga tcacagaggc 2160  
 tccaagtggg gactcactac ctagaccagt cccccacatg gtccctccct gggctgcac 2220  
 tttgcctgtc ttagtctcct gtgttccttg agaaagtgga gtcaataaca cttttctctt 2280  
 caggttgtgg g 2291

<210> 1454

<211> 2259

<212> DNA

<213> Homo sapiens

<400> 1454

aggaccttgt gggctgggca gcggcctccg gccgggaggc accagctctt cgaacaatgt 60  
 ttaaaagtct cttctgttca tcctaccggg gtgccgtctc ctgccggtct ttctcatctca 120  
 ccagggccct cgcccgggca cccccggcc aatggaccac agctgcaccc ggttcatcca 180  
 ccgccgggga ccaccactc ggacccgagc cggcttcaag aggggcaaga ggccaaggat 240  
 ccagcagagg cctcgggctc gagtctcagg gaccatccct gcgtcacgtc tgcaccagc 300  
 accggcctca cagcccggcc cctgccctgc accaggccac tgccctgttg gcccgccca 360  
 cgagaggcca atggggagca gccaggagga gggactccgg tgtcagccaa gccagccaga 420  
 ccacgacgca gatggacact gtgggccgga cctggagggg gcagaaagag cctctgccac 480  
 acccggaacc cctgggctcc tgaacagcca ccggcctgca gactcgatg acactaacgc 540  
 cgccggggcc tcagctgccc tcctggaggg gtcctgtctg gggggtggga agccatcgcc 600  
 ccacagcacc cgccggggc cttcttctta cattggaggc agcaacgggg ccacaatcat 660  
 cagctcctac tgcaaaagca agggctggca gcgcatccat gacagccgcc gggacgacta 720  
 cacgctgaag tgggtgtgagg tcaagagccg agacagctac ggcagcttcc gggaaggaga 780

gcagctgctg gaccagcttc ccaacaacaa gtcctcacc accaagatcg ggctgctcag 840  
 cacccttcgg ggacgggcac gggccatgag caaggccagc aaggtgccgg ggggggtcca 900  
 ggccaggctg gaaaaggacg cagcagcgcc cgccctggag gacctccgt ggacaagccc 960  
 aggatacctc aggccacaga gggtcctgag aatggaagag tttttcccag agacctaccg 1020  
 cctggacctc aaacacgaga gagaggcctt tttcaccttg tttgatgaaa cccagatatg 1080  
 gatctgcaag cccacagcct ccaaccaggg caaaggcatc ttcctgctcc ggaaccagga 1140  
 ggaagttgcc gccctgcagg ccaagaccgg gagcatggag gacgaccca tccaccacaa 1200  
 gacgccgttc cgggggcctc aggcgcgggt ggtgcagagg tacatccaga acccgctgct 1260  
 ggtggacggg agaaagtttg acgtgcgtc ctacctgtc attgcctgca ccacacccta 1320  
 catgatcttc tttggccacg gctatgtctg cctcaccctt agcctttacg accccattc 1380  
 cagcgacctc ggcgccact tgaccaacca gtcatgcag aagaagagcc ctctgtacat 1440  
 gctgctgaag gagcacacgg tgtggagcat ggaacacctc aaccgctaca tcagtacac 1500  
 gttctggaag gcccggggcc tcgccaagga ctgggtcttc accacctca agaagcggat 1560  
 gcagcagatc atggcccact gctttctggc cgccaagccc aagctggact gcaagctggg 1620  
 ttactttgac ctcatggct gtgacttctt gattgatgac aacttcaagg tatggctgct 1680  
 ggagatgaat tctaaccag ccctgcacac caactgcgag gtctgaagg aggtcatccc 1740  
 aggtgtggtc atcgagaccc tggacctggg gctcgagacc ttccggaaga gcctgcgcgg 1800  
 ccagaagatg ttgcctctgc tgtcccagcg ccgcttcgtg ctctgcaca acggtgaggc 1860  
 cgacccgcgg ccgcacctgg ggggctcgtg cagcctccgc cgctggccgc ccctgcccac 1920  
 ccgccaggcc aagtcctccg ggccacccat gccgcatgcc ccagaccagc cgggcgcccc 1980  
 caggcctgcg ccacctcct tggtgccgca gcgtccccgg ccaccggcc ccgacctgga 2040  
 cagcggccac gatggggagc cccaggcccc gggcacggag cagtcgggca caggcaacag 2100  
 gcacccggcg caagagcctt ccccggggac agccaaggag gaacgcgagg agcctgagaa 2160  
 cgcgaggccc taggggcagc caccgcgcc cagcgccccg cgccccgcgc cccagccgtg 2220  
 ctgcctgccc tcagggacct ataaagccca ctttgctac 2259

&lt;210&gt; 1455

&lt;211&gt; 2067

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 1455

```
ccgtaggagc gaagtcgaat ggcgccccca gcggttggg gtgggatctc agtgcctcat    60
tcctggcggc cccgggaggg cgatgccaaag tticgctctt gttccctggg ctgcagtgca    120
gtggcaccat ctcggctcac cgcaacctcc gcctcccaag ttcaagcgat tctcctgcct    180
cagcctcccc agtatctggg attacaggta tgcgccacca cgcccggcta attttgtatt    240
tttagtagag acgggggtttc tccatgttgg tcaggctggg cttgaactcc cgacctcagg    300
tgattctccc gcctcggcct cccaaagtac tgggattaca ggcgtgagcc actgcgcctg    360
gcctactaat actaggtttt attccgggcc cttcacagtt aatgttggag gccctggag    420
gatggccaca cctgggctat ttgcagaagc ctggacagca cagcaggcag agttaagca    480
gttaaggcag tatcagctga agggccaccc agctgtgcgt gtgcccaggc tccaagaata    540
aggaggttgg ggggcagtcc taagaaagga agtcattacc tatcggcaac ccaggagcag    600
acgctggcat aacggcgcac acacagtaaa ggtcagagggt tcttcttaga atagtcctta    660
ggtgttagtc aaacctatgc cctgccccaa ggagttcatt cattcattca ctcattcatt    720
cactcactca ctcactggtt ctgtttattc actcatttct ctatcacata tccatttatt    780
gtcattcacc cacttattta ctcatacatt cattcatttg ctcacatcaatt tatttggtac    840
ctacatggag ccaggtacag gtcttgatta aagagatctg gggaggagtg ctccaagaa    900
gttcagagcc tctactggtga aggaaagcca tgtaaagaca gatcttgaga acccaagatc    960
atcaaggagt atccatgatc aagcagagca gggaaggctt tttgctttgt tttgttttgt   1020
ttttaacatg ctgtgtggtt cagtaaaatt aaaacaggca caatgatatc ctggatgaca   1080
agagctggag gctgtcattc taacaatgta gtgagactgg ctgtcttgtc tcatgcccac   1140
ccctggaaac atgcgcagga actcaaagca cctagcacag aggaagtgtc tggttgtttt   1200
aaaggaaaaa caaaaccaa aaaagcacct cctgctctga ccaccctat ttccagtttt   1260
cccttttggc acagcaaaga tgaccttggg actgaggtgg aacctgtaa ttcttcgtaa   1320
ttccagagtc aggcagacct gggatatgaat tccatcttta ctaactgtgt gactcactgt   1380
gtggccatgc caagttacga ggtctctctg ttccctcctt cctaaaaagg agataacatc   1440
catctcgaag gaagatctgg cctgaagagc agtcactctt gcctggcatg cagagaatgc   1500
```

caaatcatat taatgactgg ccagaatgaa gtgcgtgacc tcatcactcc ataactgaca 1560  
 ggaaacaact gctagggcaa gaaaaaaggg tctccagtga gtattcttgt ccacacacat 1620  
 ccccaactcac gttcctggac cactgcatct aactgccgca gcagctaatag aaccttcttg 1680  
 aataaaggac cagtttctta agaagggtt gagacctcca gtggcctccc acattgtttc 1740  
 cggcaagaat ttaaaaatta tttgcaacat atagtaataa aaactaacca caggctgggc 1800  
 gcagtggctc gcgcctgtag tcccagcact ttgggaggct gaggcaggtg gatcacctga 1860  
 ggtcaggagt tcgaggccag cctgaccaat atggtgaaac cctgtttctc ctaaaaatac 1920  
 aaaaattagc tgggcatggg ggtgggcgcc tgtaatctca gctactcagg aggctgaaac 1980  
 aggagaactg cttgaatctg ggaggtagat gttgcagtga gccgatatcg cgccattgca 2040  
 ctccagcctg ggcaatgact ccgtctc 2067

<210> 1456

<211> 1801

<212> DNA

<213> Homo sapiens

<400> 1456

aaaatgcagc gaggagatgg tgggcagagg ggggccagtg cgggggtcgg ggaacacagg 60  
 cagggtcagg cccagcccc acggctggcc cccgtgaaat ttcaaattag gctacaaata 120  
 catcagacag catcggcatg gagctgctac caccaaaggt ggccagctgg gaggagacgg 180  
 ggtttggggg attaccttgg ggttctccag gattccagcc tcgtagctgc ggaggggaaa 240  
 ggaaagacag ggtcagctgg ggaggacat ggcatgtccc catccccaa cacacacacc 300  
 ccattgtgcc catgagcctg gtctgccttt tactctctgc cagagcatct gctgccaacc 360  
 tgcctgaaac attctgggcc caccatagtc acccgtggag ctgcaggttg taagaaagag 420  
 ctggggcctt tacctgtctt ctggggactg cccggggct ctgcacgtgg ttgggggggc 480  
 ctctgcctct gccttaaca ctcttccct gtgccacatc tgggcctctt ctccatcctt 540  
 gaatgccacc tcctctaaga agccctcctt gatactcctg atgaggccgg gtcccatga 600  
 tctatctccc caacaacact cagcagaact gcaatgaggg cagtgcata gccgggcgt 660

tcgacctctg tcctgcctga ggcctctcag ctccccgagg gcagggacca ctggtgtgag 720  
 ggtcaccagg acgtcctggg gcagcgcgtg gccgtccttt ggaatgagcc cgggaggacc 780  
 aaggatgggt ggagggtggg atttacctga tgtgcatgag gttctcatcc atgctccacg 840  
 ggttcttggg agtgaccggg atgggaatcc cgtgttgctg caggaaagag acagcacagg 900  
 tggaggttaag gcggctggaa ggacgcgtga ggtccgtccc aggggccctg ctttttcaga 960  
 gagcccaaaa ctctggcccc cattcagaca agaccctggc tacctcctag tgttggtcac 1020  
 ggtcacctcc ctgggggggac cctattgctg gacatgcccc agagaaactg caggaccgtg 1080  
 tgtctgcaat gctgaccttg gaggttcctt ccagaagact ttgagtctac atctcaagga 1140  
 cccctgaagc actgagcaag cacgcagggt ccatgcccag ccaggctctcc cggcaccagc 1200  
 caaccagccc cgccaccacc ctacgagctg gggcttgtgt gaaccgcgtc gcaactgtgga 1260  
 ccggggcacc tggcaccaga gcccaggcag tgcttcctgt ggaccccagg acaggaggac 1320  
 acccacctct gcccaggagg cccaggctaa gagggctgca ggtcacgcat ggaaggccca 1380  
 cctgactcag ccttaagagg aggaagaaga tgaggcttgt cgcctgggg acccgcacca 1440  
 cccttgatga cggccgactg gaatccagct cgtgcactcc agcctcctcc tgcactcgga 1500  
 cacctggcac tgctctcctg gcccgaagct tatagggcac aggggtgact gaaggggccc 1560  
 caccagccc ctcagagcca gcgagactgg atgctctgcc tctgagcccc ttcagccctt 1620  
 cagccccact ggatccctgt gggaaccaca ggcagcccc accgggtcac cctcccatct 1680  
 ctctcctgat gggatcgacc ccactcaggc tcattcccaa gatggtgaga ttctagaggc 1740  
 ctctgcagg gagcagctgt ttcccatca ccaccttaac attaaaatga ggctaaatgc 1800  
 t 1801

<210> 1457

<211> 2209

<212> DNA

<213> Homo sapiens

<400> 1457

cacaccttat tcaccatcat agaattcata ctggagagag accctataaa tgtgaagaat 60

gtggtaaagc cttcagtcaa aattcagccc ttattctaca ccagagaatc catactggag 120  
agaaaccata tgaatgtaat gaatgtggga agacctttag ggtagttca cagcttattc 180  
agcatcagag aattcatact gaagaaagat accatgaatg caatgagtgt ggcaaagcct 240  
tcgagcatag ctcaggcctt attagacacc agaaaattca tactggagaa aaaccatata 300  
tgtgtaatga atgtgggaag ggcttcgggc agagtctga gcttatccgg catcagagaa 360  
ttcatacagg ggacaaaccc tatgaatgta atgaatgtgg gaaaactttt ggccagaact 420  
cagagattat tagacatatt agaattcata ctggtgagaa gccctatgta tgtaaggaa 480  
gtgggaaggc cttcaggggg aactcagaac ttcttagaca tgagagaatt cacactggag 540  
agaaacccta tgaatgcttt gagtgtggaa aggctttcag gcggacctct caccttattg 600  
tccaccagag aattcatact ggagagaaac cccatcaatg taatgagtgt gcaagaacct 660  
tttgggataa ttctgagctg cttctccacc agaaaattca tattggagag aaaccttatg 720  
aatgtagcga gtgtgagaaa acatttagcc agcattccca acttatcata catcagagaa 780  
ttcacactgg agagaagcct tatgagtgcc aagaatgtca gaagactttt agtcggagct 840  
ctcacctcct ccgacatcaa agtggttact gtatggagta atctgcaaaa taggaaagct 900  
tttagtgga aagctaaagt ccaacttatt catttgttca taatatgcaa atatgcaccc 960  
caagtattca aatccaatga atggacagaa cctcctctgt cctccactg attttaaata 1020  
gttggttgaa gaagatgagg cacttttttt ttttttttta agcattgggg tcttgctctg 1080  
ttgccagga tgggatgcag tggcacagtc gtaactcact gcttccttga actcctgggc 1140  
tcaaacagtc ctctgcctc agccttccaa atagctagga ctgcaggcac taatgaggca 1200  
cttttatgaa ttattcattg agaggtttca gtgtgctaag ttaaatacata aaagctcttt 1260  
caggccttaa tttcccctct gtccttcctt ccccttctcc tccccagtg gatcacataa 1320  
caaacattaa gggctctgtac cagccatctt tcctaaatta ctcttcagca aaattgtggg 1380  
aacaggattc caccacctcc taagaatgag agttgactca ttgactgtta cccctgaaa 1440  
tattagaaag tcataattta gaagacacac ctcatctcc tgtccatgtt tagcattgga 1500  
ataatttagt aagctgttat tagcttcaaa gtcgtccagc cctgctatga agttacttta 1560  
gaagatggca gcattaatga agaagcaggc tcatttcaca tctgtcagcc ttccttattc 1620  
atctgaagag gctgccatga tggaggaact gacaggcaat ttacaacggg attataagtg 1680  
aaggccttag aatccagagg ggccgattag gcaacaccag gggataaaca attgggggtca 1740  
cactgctcgg catgggcaga agcagctctt caggagctgt ccacacttca ggggtgctca 1800

gactgactgc tcctaagaat tctgctgcat atatTTTTtag ccccatctcc tgccactgct 1860  
 gacagatatt gtgacagtaa gtagcagaca ggactgtggc ttcacctcct ccgggcacct 1920  
 ggctacagtg atgagtcagt tcacctgatg acaaaccagg gtctggcctt gccaaagcac 1980  
 ttaagttctc atgacctgga ccacactgga ggccctggct aagtcaggat gtcgtagcct 2040  
 cttcttggtt ttgccccttg gccttgaaat tctTTTTtct tgaataactt taaaaaata 2100  
 gagataaagt cttgctatgt tgcccaggct ggtcttgaat gcctgggctc cagcaatctt 2160  
 tttgcctcaa cttcccaaag tattgagatt acagggtgtga gctaccatg 2209

<210> 1458

<211> 1753

<212> DNA

<213> Homo sapiens

<400> 1458

ctgcgctgcg ccgcccggcc tcaactccgcg gcccgccagg acccggcccc ggtgaacggg 60  
 ctcgggggtgc cgaggtccgg ctgcggggcc gggaagccac ctccaccttg ccgtctgtta 120  
 cgacccccga ggcgcaaggc tgagccccat ctcgctatcc ggggtccggag gggttcacct 180  
 tagaaggatt ttttgaagct cttggcgctg gctctaaaag aaccacttc cttgcggatt 240  
 tcaggagtca agaatcctta aacggagcca atttgctttg taaagccaat tgcccaagtg 300  
 acttgagttc gaaaggagat acttcctgga caactgctat aaaaacaaca acaataactt 360  
 ttattaattc ggggagcctg gtcaccaact ggatgctcag ttgaggggag atggaaccct 420  
 gagcagccca tgtacatgga agatctttat tgcagagatc ttcaaaccag gaaactgagg 480  
 ctaaagagtt tagtattctg ccaaggccag ctaatagtta cagagcatgg ttccaaattc 540  
 agagctgtcg gaagcttaag cccatgtgat gaaccacgaa tgtgatttta cctcatTTaa 600  
 gccttgcagc aaactctgcc aagctgtctc taccaggcca gaatttgggg caggcaagat 660  
 tttcagcatc cctaaaatca cactaagaag ataaacatgg aaacagcttg gagctgcctt 720  
 acccatagtg aggtggtact gactggaaga cagcttaaac gatttggaga aaagtggaat 780  
 acattaatct cagaaaactc taccacctgt agaaagagag ctaaaatgga gacaaccaca 840

ggcagtctaa gatacgctga actactacag aaaataatgc agcatgaagg aatgctggaa 900  
 ggatcttcta aggggtgtgag gatacaggcg tcaaagaccc cgtgctgaga cagctccata 960  
 acaacatgca gatatttggc aatgagggtt cagaagagga cttgctgtgg agaagagaga 1020  
 aaagagatgg gaagactctg tgaatgaata gagaacactc tgcaagcatc ccagttcctt 1080  
 tggttgccct gcagtctgca ggtaccagga gaaatcaaaa gccgcctgga agggctttct 1140  
 gtctgtatgg agtcaaggca gtgtcttcaa atctgtgctt tctaaaacaa agaaataacc 1200  
 ttgatgaaac aaattttccc cagaggaagg ggagagccca cagtgagctg gtaaagaaga 1260  
 tgcctggagc aggcagcatc ctcaaagga agagatgggtg tcttgctatg ttgcccaagc 1320  
 tggctttaa ttctggcat caagtgatcc tctgcctca gcctcccaa gtactgggat 1380  
 tacagaacaa aacaatcagc aggcgggtct gcggcattct aagaacagac actggcagga 1440  
 acaaaggtta cagaagtga tgactctaag aatcaagcaa gacatggagt ggcagaaaat 1500  
 taaattctga atccctaaaa gacatgatgc aaagatgacc tcctctcca aggacatgtc 1560  
 ctcacctgc gctgaccgtg tgtgggtcatt tcagaaaaag cgaacaatgg agaacctgct 1620  
 tgaatgatac ttagacctgg gacaactgaa aggagttgca cttatacaat tcggtgcagt 1680  
 ggagtcacct gggaggagcc ccagtcacac ggggaagagac agtcacagct gtaataaatg 1740  
 atggctagca tgt 1753

<210> 1459

<211> 2308

<212> DNA

<213> Homo sapiens

<400> 1459

cagtcagcaa ctgtgtgtca ctaatacccg gactccttca tcagtcagaa agcagttgtt 60  
 tgcctgtgtg cctaagacaa gtctccagc aacagtgatt tcttctgtga caagcacttg 120  
 tagttccctg ccttctgtct cctctgcacc taccactagc gggcaagctc ccaccaaaga 180  
 gaaagtgtcc acacaggacc agcccatggc aaacctatgt accccatctt caactgcaaa 240  
 cagttgcagt agctctgcca gcaacacccc gggagctcca gaaactcacc catccagtag 300

tcccactcct acttccagta acacacaaga ggaggcacag ccatccagtg tgtctgattt 360  
aagtcctatg tcaatgcctt ttgcatctaa ctcagaacct gctccattga ctttgacatc 420  
accagaatg gttgctgctg ataatcagga caccagtaat ttacctcagt tagctgtacc 480  
agcacctcga gtttctcatc gaatgcagcc cagaggttct ttttactcca tggtagcaaaa 540  
tgcaactatt caccaggatc cccagtctat ttttgttacg aatccagtta ctttaacacc 600  
acctcaaggc ccaccagctg cagtgcagct ttcttcagct gtgaacatta tgaatggttc 660  
tcagatgcac ataaaccag caaataagtc tttgccacct acatttggcc cagccacact 720  
tttcaatcac ttcagcagtc tttttgatag tagtcagggtg ccagctaacc agggctgggg 780  
agatgggtcca ctgtcctcac gagttgctac agatgcctct ttcactgttc agtcagcggtt 840  
cctgggtaac tcagtgcctt gacacttgga aaacatgcac cctgataact caaaggcacc 900  
tggtttcaga ccaccttccc agcgagtttc tactagtcca gttgggttac catccattga 960  
cccatcaggc agtccccat ctctctcttc tgctcctctg gcaagttttt ccggcatacc 1020  
aggaacaagg gttttcctgc aagggccagc tcctgttggg actcctagtt tcaacagaca 1080  
acatttttct ccccatcctt ggacaagcgc ctcaaactca tgtgactctc ctattccatc 1140  
tgttttcttcg ggatcatctt cacctctttc agccacttct gccccaccaa cgttgggcca 1200  
acaaaagga gtcagtcca gtcaagatcg aaagatacct cccccaattg gaacagagag 1260  
actggcccga attcggcaag gagggctctgt tgcacaagcc ccggcgggga ccagttttgt 1320  
cgctcccgtt ggacacagtg gaatctggtc atttgggtgc aatgctgtgt cagaaggctt 1380  
atcaggttgg tcgcaatctg tgatggggaa ccatccaatg catcaacaat tatcagaccc 1440  
aagcacattc tcccaacatc agccaatgga gagagatgat tctggaatgg tagccccctc 1500  
taacattttt catcagccta tgggtctgcc aatttccatg tatggaggca ccataatacc 1560  
ctctcatcct cagcttgctg atgttccagg aggcctctg tttaatggac ttcacaatcc 1620  
agatcctgct tggaacccta tgataaaagt tatccaaaat tcaactgaat gactgatgc 1680  
ccagcaggcc agtctgcttc cttcagtcct tgctctcaa ggggaaatcc catcacctca 1740  
gctaaccaga ccgaagaaga gaattggacg gccgatggtg gcctctccta accagaggca 1800  
ccaggatcat ctacgaccga aagttcctgc tggagtgcaa gaactcacc attgcccga 1860  
caccctctg ctgcctcct cagattcccg gggtcacaac tcctccaaca gccctctct 1920  
ccaagctgga ggagctgaag gagcaggaga cagaggaaga gataccgat gacgcacaat 1980  
ttgaaatgga catctaatacc agtgcagatg acctggcatg tggagttaca gagggatccc 2040

tcatgccact gctgccacca cctcttcctg gggcatccaa aggccagctg gcctcatcta 2100  
 atctggaagg gagtgacttg ttagttccag gcctccttta gttctgaggc agctagacca 2160  
 gggataggag tgggcaactt gccaaagcct taactctact tcctcttcag tctgtggtac 2220  
 tcctcctaac cctaaaccct ctatgctcag gggctggaac tggggaatgg agtaagtcac 2280  
 cttctgactg cttagtaaac attcaaag 2308

<210> 1460

<211> 1436

<212> DNA

<213> Homo sapiens

<400> 1460

attgcgctg ctcagttctg ttcagcggct gcaggctgct aagcggtcc gggagctgat 60  
 ttggatagag gctgttgagc agggctgaag ttggctaata cgtgtgctg ttggctttca 120  
 acaattccga tagagaaact gaagcacaga gaggttatgc agctttccca ggttcatgta 180  
 gctggtaaga acagagtcca tgttcttata actcaagatg ttctgttggg gacggcatgc 240  
 catggtctta aggatcgccc cttcttcaga tgatctgctg ctcacctcag atacctacag 300  
 agactctgct ggtgcctgtc aaagctctaa tacctcaagg aatgtcagaa tatgggacag 360  
 aaggagccag gacatccacc ttgactgtt ctgggaggaa gaaatacatt ttctggcctg 420  
 cgcagggtgg ctcacgcctg taatcccagg gcgctgggat tatgggtgtg agccaccaca 480  
 cccagcctgc ttcacaagtt ttaactctgt tactgttgat gatgtacctc acagacccgc 540  
 cagtcatgcc acatgtgaat cttgagttag caatttaagt ttgagtttct tcctagaaaa 600  
 taataaaatg ctataggaaa aacagatgta atttccagag aaagggcaga ggactttctt 660  
 acattttttt ggggtactcag tccaaaaagt acttgggtgg ttgctatcca tcaagcaatg 720  
 tgctagccca tttcacatat attttctac tataatagtt gatacaaagt tctgcatagt 780  
 taaacatag gaccagaagg ttataactaa aataaaaatt tggtttgaaa atacttggag 840  
 aggccgggtg tgggtggctca cgcctgtggt cccagcgtt tgggaggccg aggcgggcgg 900  
 atcacagggt cgggagattg agaccatcct ggctaacacg gtgaaacccc gtctctgctg 960

agaatgcaaa aattggccgg gcgtggctgc gtgtgcctgt agtcacagct gctagggagg 1020  
ctgaggcagg agaatggcgt gggcccggga ggctggagtg cagtggcggg atctcggctc 1080  
gtgcaacct ccgcctcccg gggttcaggca gtctgcctc ggcctcccag gtggctggga 1140  
ttgcaggcgc ccatcaccac gcctggctga tttttgtatt tttagtagag atggatttgt 1200  
ccgtgttggc caggctggtt gcaaactgct gacctcaggt gatctgcccg ccttggcctc 1260  
ccgggggtgct gggattacag gcgtgagtct ccctctgtcg cccaggctgg agcgcggtgg 1320  
ctcgatcttg gctcactgag gcaggagaat tgcttgaacc caggaggcag aggttgcagt 1380  
gagctgagat cgtgccgctg cgcttcagcc tgggcgacag agtaagaatc tgtctc 1436

<210> 1461

<211> 1878

<212> DNA

<213> Homo sapiens

<400> 1461

agacaacact agatgggggtg gtcaggggaag gtctgttgag ctgaggctga aggatgagaa 60  
aggccaggaa ggacttactt gggaaaatgt ttgttggtgat atgtatgagt gctgcaggtg 120  
aaacaaaaat gaagccagtg tagttggatc agatacctca aatcagctat gcatccacag 180  
ccccagagct aagtataac accaggtatg actttttctc tcgagtgggt ccgcctgact 240  
cctaccaagc ccaagccatg gtggacatcg tgacagcact gggatggaat tatgtttcga 300  
cactggcttc tgaggggaac tatggtgaga gcggtgtgga ggccttcacc cagatctcga 360  
gggagattga aaatgtatga aaggcctggt cttgttggac agattgggct aattgattta 420  
attggacaac tggtcacacc tgctgtggtg tttgcattgc tcagtcacag aaaatcccac 480  
gtgaaccaag acctggagaa ttgaaaaaa ttatcaaacg cctgctagaa acacctaattg 540  
ctcgagcagt gattatgttt gccaatgagg atgacatcag gaggatattg gaagcagcaa 600  
aaaaactaaa ccaaagtggg cattttctct ggattggctc agatagttgg ggatccaaaa 660  
tagcacctgt ctatcagcaa gaggagattg cagaaggggc tgtgacaatt ttgcccaaac 720  
gagcatcaat tgatggattt gatcgatact ttagaagccg aactcttgcc aataatcgaa 780

gaaatgtgtg gtttgcagaa ttctgggagg agaatttttg ctgcaagtta ggatcacatg 840  
 ggaaaaggaa cagtcataata aagaaatgca cagggctgga gcgaattgct cgggattcat 900  
 cttatgaaca ggaaggaaag gtccaatttg taattgatgc tgtatattcc atggcttacg 960  
 ccctgcacaa tatgcacaaa gatctctgcc ctggatacat tggcctttgt ccacgaatga 1020  
 gtaccattga tgggaaagag ctacttgggt atattcgggc tgtaaatttt aatggttgcc 1080  
 gaagagggat ccagatgtct ctaccctggc caactctttt tactccttca tttccagta 1140  
 gttgggcagt gctggcactg tgaacgtgt gaaggttaca actaccagggt ggatgagctg 1200  
 tcctgtgaac tttgccctct ggatcagaga cccaacatga accgcacagg ctgccagctt 1260  
 atcccatca tcaaattgga gtggcattct ccctgggctg tggcgcctgt gtttgttgca 1320  
 atattgggaa tcatcgccac cacctttgtg atcgtgacct ttgtccgcta taatgacaca 1380  
 cctatcgtga gggcttcagg acgcgaactt agttacgtgc tcctaacggg gatTTTTtctc 1440  
 tgttattcaa tcacgttttt aatgattgca gcaccagata caatcatatg ctccttccga 1500  
 cgggtcttcc taggacttgg catgtgtttc agctatgcag cccttctgac caaaacaaac 1560  
 cgtatccacc gaatatttga gcaggggaag aaatctgtca cagcgcccaa gttcattagt 1620  
 ccagcatctc agctggtgat caccttcagc ctcatctccg tccagctcct tggagtgttt 1680  
 gtctggtttg ttgtggatcc ccccacatc atcattgact atggagagca gcggacacta 1740  
 gatccagaga aggccagggg agtgctcaag tgtgacattt ctgatctctc actcatttgt 1800  
 tcacttggat acagtatcct ctgatggtc acttgactg tttatgccat taaaacgaga 1860  
 ggtgtcccag agactttc 1878

<210> 1462

<211> 1962

<212> DNA

<213> Homo sapiens

<400> 1462

atctatgttt gccctgcttc ctgccagttg gaaagacatt gaagcccctg gatttccatg 60  
 gagctgtcat gagggccttg gatgacatgg accatgaagg cagagacaca ttggcccggg 120

aggagctgag gcagggcctg agtgaactcc cagccatcca cgaccttcat caaggcatcc 180  
tggaggagct ggaggaaagg ctgtcaaatt gggagagcca gcagaaggta gctgacgtct 240  
tccttgcccc ggagcagggg tttgatcacc acgccactca catcctgcag ttcgacaggt 300  
acctaggtct gctcagttag aattgcctcc actctccccg gctggcagct gctgtccgtg 360  
aat ttgagca gagtgtacaa ggaggcagcc agactgcgaa gcatcggctg ctgcgggtgg 420  
ttcaacgcct cttccagtac caagtgtcc tcacagacta tttaacaac ctttgtccgg 480  
actccgccga gtacgacaac acacagggtg cactgagcct catctccaaa gtcacagacc 540  
gtgccaacga cagcatggag caaggggaaa acctgcagaa gctgggtccac attgagcaca 600  
gcgtccgggg ccaaggggat ctctccagc caggaaggga gtttctgaag gaagggacgc 660  
tgatgaaagt aacggggaaa aacagacggc cccggcacct atttctgatg aacgatgtgc 720  
tcctgtacac ctatccccag aaggatggga agtaccggct gaagaacaca ttggctgtgg 780  
ccaacatgaa ggtagccgc cctgtgatgg agaaagtgcc ctacgctcta aagattgaga 840  
cttccgagtc ctgcctgatg ctgtctgcga gctcctgtgc agagagggac gagtggatatg 900  
gctgtctgag cagagccctc cctgaggact acaaggccca ggcgctggct gcattccacc 960  
atagcgtgga gatacgagag aggctggggg ttagccttgg ggagaggccc cccaccctgg 1020  
tgctgtcac acacgtcatg atgtgcatga actgcggctg cgacttctcc ctcaccctgc 1080  
ggcgtcatca ctgtcacgcc tgtggcaaga tcgtgtgccg gaactgttcg cggaacaagt 1140  
acccgctgaa gtacctgaag gacaggatgg ccaaggtctg cgacggctgc ttcggggagc 1200  
tgaagaagcg gggcagggtg gtcccgggcc tgatgagaga gcggcctgtg agcatgagct 1260  
tcccgtgtc ttcacccgc ttctcgggca gtgccttttc atccgtcttc cagagcatta 1320  
accctcgac cttcaagaag cagaagaaag tcccttcagc cctgacagag gtggctgcct 1380  
ctggagaggg ctctgccatc agtggctatc tcagccggtg taagaggggc aagcggcact 1440  
ggaagaagct ctggtttgtc atcaaaggca aagtctcta cacctacatg gccagtgagg 1500  
acaaagtggc cttggagagt atgcctctgc taggcttcac cattgctcca gaaaaggaag 1560  
agggcagcag tgaagtagga cctatttttc acctttacca caagaaaacc ctattttata 1620  
gcttcaaagc agaagatacc aattcagctc agaggtggat cgaggccatg gaagatgcga 1680  
gtgtgttata gcagttatca agcatgtgga cttgtaacaa attcttaggt caatatgtga 1740  
atgcttttag aagctaagct gtggctcaac tcatccggac acacacctgg attcagcaat 1800  
gaggcctgac cttttttgct ataaccgccc caccactccc ctgcccttgc caacatcttc 1860

atgaatggaa tccttaaggg atatattatgg acctctcctt ttctgtgttt tccacccta 1920  
ccccaccccg ccaccagta ataaactatt tccttaccgc gc 1962

<210> 1463

<211> 1827

<212> DNA

<213> Homo sapiens

<400> 1463

gaagcgggtgc gttttaacaa gagcctgggt gccggcgggc tgaggcgtaa aatggcgta 60  
gcccccaaaa tggcgtcagc cccaagttag gacggggcag gggttttatt gtctcctata 120  
aacagggggc gtctcgggtc gacgtaactg ctacgcgta cccggatggc ctctttctcc 180  
atcttcaggg ggccttagat gccaacctca tctccctggc cccggagagg agctttgagg 240  
ggctgtcctc cctccgccac ctctggctgg acgacaatgc actcacggag atccctgtca 300  
gggcccctcaa caacctccct gccctgcagg ccatgaccct ggcccctaac cgcacagcc 360  
acatccccga ctacgcgttc cagaatctca ccagccttgt ggtgctgcat ttgcataaca 420  
accgcatcca gcatctgggg acccacagct tcgaggggct gcacaatctg gagacactag 480  
acctgaatta taacaagctg caggagtcc ctgtggccat ccggaccctg ggcagactgc 540  
aggaactgtt caagcgattc tcctgcctca gcctcccag ttgctgggac tacaggcacg 600  
caccaccatg cccaggggggt tccataacaa caacatcaag gccatcccag aaaaggcctt 660  
catggggaac cctctgctac agacgataca cttttatgat aaccaatcc agtttgtggg 720  
aagatcggca ttccagtacc tgcctaaact ccacacacta tctctgaatg gtgccatgga 780  
catccaggag tttccagatc tcaaaggcac caccagcctg gagatcctga ccctgaccgc 840  
cgcaggcatc cggctgctcc catcggggat gtgccaacag ctgcccaggc tccgagtcct 900  
ggaactgtct cacaatcaaa ttgaggagct gccagcctg cacagggtgc agaaattgga 960  
ggaaatcggc ctccaacaca accgcatctg ggaaattgga gctgacacct tcagccagct 1020  
gagctcctgt gattctaccc aggccctggc agccttctct gatgtggatc tcattctgga 1080  
agcttctgaa gctgggcggc cccctgggct ggagacctat ggcttcccct cagtgaccct 1140

catctcctgt cagcagccag gggccccag gctggagggc agccattgtg tagagccaga 1200  
ggggaaccac tttgggaacc cccaaccctc catggatgga gaactgctgc tgagggcaga 1260  
gggatctacg ccagcaggtg gaggcttgctc aggggggtggc ggctttcagc cctctggctt 1320  
ggcctttgct tcacacgtgt aaatatccct cccattctt ctcttccct ctcttccctt 1380  
tcctctctcc ccctcgggtga atgatggctg cttctaaaac aaatacaacc aaaactcagc 1440  
agtgtgatct atagcaggat ggcccagtc cttggctccac tgatcacctc tctcctgtga 1500  
ccatcaccaa cgggtgcctc ttggcctggc tttcccttgg ccttcctcag cttcaccttg 1560  
atactgggccc tcttcccttg catgtctgaa gctgtggacc agagacctgg acttttgtct 1620  
gcttaaggga aatgaggga gtaaagacag tgaaggggtg gagggttgat cagggcacag 1680  
tggacagga gacctcacag agaaaggcct ggaagggtgat ttcccgtgtg actcatggat 1740  
aggatacaaa atgtgttcca tgtaccatta atcttgacat atgcatgca taaagacttc 1800  
ctattaaaat aagctttgga agagatt 1827

<210> 1464

<211> 1853

<212> DNA

<213> Homo sapiens

<400> 1464

agttcagttt ggcggttccg gtaccgctct cacattgggg cgggatgtgg gagcggctga 60  
actgcgagc aggggacttt tattctcgtc tccttcagtg tcctgcagag ataaagtgat 120  
gactgactcc tgagtgtgaa taacgggaga gataatgtag ttctgttttt cacatgtggt 180  
tctgcgtttc aggaaattta atgaagaaaa gaaaggaatc cgtaaagacc catttctcta 240  
tgagccttta gaaaaggaag aaacaagtca tattgaagaa cttcaatctg aagaaactgc 300  
catatctgat ttctctactg gcgaaaatgt tggaccactt gctttaccag ttgggaaggc 360  
aaggcagtta attggacttt acaccatggc ccacaatcct aatatgacct atttgaagat 420  
taatctgcca gttactgccc ttcttccctt ttgggtaaga tgtgacagtt cagatcctga 480  
aggtacttgt tggctaggag ctgagcttat cacaacaaac aacagcatta caggaattgt 540

cttatatgtg gtcagttgta aagctgataa aaattattct gtaaactctg aaaacctaaa 600  
aaattttacac aagaaaagac atcacttgte tactgttaaca tccaaaggct ttgcccgata 660  
tgagctcttt aagtcctctg ccttggatga tacaatcaca gcatcacaaa ctgcgatcgc 720  
tttggatatt tcctggagtc ctgtggatga gattcttcaa atccctccac tctcttcaac 780  
tgcaactctg aatattaaag tggaatcagg agagcccaga ggtcctttga atcatctcta 840  
cagagaactg aaattttctt ttgttttggc tgatggtttg aggactgggtg tcaactgaatg 900  
gctcgagccc ctggaagcaa aatctgctgt tgaacttggt caggaatttc tgaatgactt 960  
aaataagctg gatggatttg gtgattctac aaaaaaagac actgaggttg agaccttgaa 1020  
gcatgacact gctgcagtcg atcgttccgt caagcgctt ttcaaagttc ggagtgtatc 1080  
tgattttgct gagcaactgt ggtgcaaaat gagcagtagt gtgatttcat accaagactt 1140  
ggtgaagtgt ttcacattga tcatccagag tctacaacgt ggtgatatac agccatggct 1200  
ccatagtgga agtaacagtt tactaagtaa gctcattcat cagtcttacc atggaaccat 1260  
ggacacagtt tctctcagtg ggactattcc agttcaaagt cttttggaaa ttggtttgga 1320  
caaaactaaag aaagattata tcagtttttt cataggtcag gaacttgcat ctttgaatca 1380  
tttggaaatac ttcattgctc catcagtaga tatacaagaa caggtttacc gtgtccaaaa 1440  
actccaccat attctagaaa tattagtcag ttgcatgcct ttcattaaat ctcaacatga 1500  
actcctcttt tctttaacac agatctgcat aaagtattac aaacaaaatc ctcttgatga 1560  
gcaacacatt tttcagctgc cagtcagacc aactgctgta aagaacttat atcaaagtga 1620  
gaagccacag aaatggagag tggaaatata tagtgggtcaa aagaagatta agacagtttg 1680  
gcaactgagt gacagctcac ccatagacca tctgaatttt cacaaacctg atttttcgga 1740  
attaacacta aacggtagcc tggaagaaag gatattcttt actaacatgg ttacctgcag 1800  
ccaggtgcat ttcaagtga gtgtgctgat gaagtcctct ataagcaca gcc 1853

<210> 1465

<211> 1940

<212> DNA

<213> Homo sapiens

&lt;400&gt; 1465

ggaccaggaa caatctcagt tacaaagtga actactaaat attgagtctc aatgtattat 60  
gttgggtgaa ggaatcaagg aacgacaacg aagaattaaa gaatttcaag aaaagataga 120  
taaggtagaa gacgatatct tccaacactt ctgtgaagaa attggcgtgg aaaatattcg 180  
tgaatttgag aacaaacatg ttaaaccggca acaagaaatt gatcaaaaaa gattagaatt 240  
tgaaaaacaa aaaactcggc ttaatgttca acttgagtat agtcgcagtc accttaagaa 300  
gaaactgaat aagatcaaca cattaaaaga aactatccag aaaggtagtg aagatattga 360  
tcacctaaag aaggctgaag aaaactgtct gcagacagtg aatgaactca tggcaaagca 420  
gcagcaactt aaggacatac gtgtcactca gaactccagt gccgagaaag ttcaaactca 480  
aattgaagag gaacggaaga agtttctggc tgttgatagg gaagtgggga aattgcaaaa 540  
agaagttgta agtattcaaa cttctctgga acagaaacga ttagagaagc ataacttgct 600  
gcttgattgc aaagtgcag acattgagat aatccttttg tcgggggtcac tggatgacat 660  
cattgaagtg gagatgggaa ctgaagcaga aagtaccag gcaacaattg atatctatga 720  
aaaagaagaa gcctttgaaa tagactacag ctctctaaaa gaggatttga aggctctaca 780  
gtctgatcaa gaaatcgagg cccaccttag gctcttattg cagcaagtag catcccagga 840  
agatatctta ctgaaaacag cagcccaaaa cctacgagca ctggagaact taaagactgt 900  
cagagacaag tttcaagagt ccacagatgc ttttgaggcc agcagaaagg aagccagaat 960  
gtgtaggcaa gagttcgagc aagtgaaaaa aaggagatac gatcttttca cccagtgttt 1020  
tgagcatgtc tcaatctcaa ttgatcaaat ctacaagaag ctctgcagaa acaacagcgc 1080  
ccaagcattt cttagcccag agaaccctga agaacccttac ttggagggaa ttagctataa 1140  
ctgtgtggcc ccaggcaaac ggtttatgcc aatggacaat ttgtcagggg gagaaaagtg 1200  
tgtggcagcc ttggctctcc tgtttgccgt gcacagtttt cgtcctgccc cattctttgt 1260  
tttagatgaa gtggatgcag ccctagacaa tactaacata ggcaaagtgt caagttacat 1320  
caaagagcaa actcaagacc agtttcagat gatagtcac tccctaaaag aagagttcta 1380  
ttccagagcc gacgcgctga tcggcatcta tcctgagtac gatgactgca tgttcagccg 1440  
agttttgacc ctagatcttt ctcagtatcc agacactgaa ggccaagaaa gcagcaagag 1500  
gcacggagag tcccgctagg ggcagtctg cagcagtcac ctgatcactg ttcagttccc 1560  
actctaatac tcacacagct cctccacagg agacttctgg agcaagcagg accagcctgg 1620  
tgcacccttt aagagaaacc ttagtcgttc tagccaaaaga ggctgtggct cactttagtt 1680

gagtgttcag acctcattct agtagggaaa gttttcagtg agagctgggtg ttaaattgagt 1740  
 ttttaaaaaa caaacaaaag gtacaatttt gtactataat tctaacttct attttgaaat 1800  
 aagctagttt gggttgaaaa attttgaatt cagcttcac ttcactctga tcttgcccta 1860  
 cacccaagta atcttgaagg gaacttctct tggtttttaa acatactagt tataagattg 1920  
 ttaataaaact gttgaacctg 1940

<210> 1466

<211> 2515

<212> DNA

<213> Homo sapiens

<400> 1466

aaaactcgat tcaccatcgc cagccacggg aggactggga ggacctccag aggaggttag 60  
 gtcgacttca tggtaacttt agatccggaa acctcccagg atttttcttg tcttcccttt 120  
 gatctctctt ccacctacc aacaggacag gactcgccgc ctttctttcc cggcagaaag 180  
 ggggtccgttg cggacaagac caaagtgagc agctggtttc ccctacttgt ctttccgggc 240  
 ctgggcgtct cgggaactca ggctgacctg acacctaaact cctggcgagt gggaccacca 300  
 ggagcctgga agagcgcgcg caccgagatg gaagtgggc gccgggggtcg agaaccgcgg 360  
 tcaaaccctc ttcttccagg ggcaccgcgc acctgcccc ggggatgccg aaggaagtga 420  
 cccataaagc ttctctgcaa ccgaaagagg cctgaagctc cgggagggcc gagaggagcc 480  
 tcgttgagca aaccagccc tctgcctggc tggccctggt caacaggctc ggaagaggcc 540  
 gatttgagg acagaacgga agaaaagacc taaaggtttc gaatctcatg acgcagagat 600  
 gttaaaaatc tccaatccta aggtccgact gtgcggggga gcgagggggt ctcaagctgg 660  
 atcgaccctt gagccttcat ctggagagtc ctctgcacaa gctcagacag caggacaacg 720  
 cgcactcagt gttctcaaga gggggcaact tcgcccttac acgcctctcc catccccgt 780  
 gggacactag gtcacgaatg ggggaagcgg ggaggagaa tgctaacccc ctggcatgta 840  
 tctagtcagc ggaggcgacg gctgctgcta aacaccttac aatccacggg agggcccctc 900  
 ccctaccccg aagtagctat tccgcagagg tggagagact cgcgtgtagc tcaatgccca 960

cgcaacttagc cgatgggaaa tcacgaattg atgaccagtt ggctcttgga tgtgaggaaa 1020  
aatctccaga gtcagaggga actctcgaag ttttggccgg agcaaacgga aggggtggcgt 1080  
tgccatcgcc taagatggga aaatggcagg tgtcacaggt tgcaggggaa ggtcggagac 1140  
cagctgaggg ccccgagacc ttcttgaaa gagtttcca tccagccgc ctcggtttcc 1200  
gcatccgtct tattccttat gacgttgagg gtgctggcgt ctgggtcctt tatgatgcag 1260  
aggggtgccc cgtctaccc cgggcgcctc cgcgctcccg cctcctctg gcaacctggt 1320  
gcgcggctcc ggatctggcg acccacgacc ggctggtcac ttgctgccac ctcgcaaagg 1380  
cgcgtctcta gtccagtggg gagctgcggc cgggtcgctg taactcgctc caggactcgg 1440  
gactcgtggc cttggtgtcc ctgcggagc cctcggtgtg tcgcctgcag gctctttttt 1500  
tgaagaaagc agggaggga tggccttggt agagactcca ggagcaaaga gcgacctca 1560  
caaggcccaa gtcctccag agctcaggga agctgtggct tctgacggaa gaagggagag 1620  
aaagctccct cctgtgtgtc cctggtggtc tagtggctag gattcggcgc tttaccgct 1680  
gcggcccggt ttcgattccc ggtcaggga tcgttttaca ctggccgcc tccgcagga 1740  
atcttccttc actacgtgt cagccggcct gctccaagag ccagaagcag aacagtctcc 1800  
tcagcggggt caaagacggg cgaaggagg caagtgttg tggaccact ctcacgacac 1860  
accgttccta tttatctccg tgtccgtcat ccgcgggagc agctttagag agcgactgag 1920  
catctcggtc cgggtgtacac agcccggcag agatgccagc ccccgaggag ctgcacccaa 1980  
taagcccacc ttctttcccg tcgccacccc ggagacgccc atcgggctga gctgcgaata 2040  
actaagagag aggccaagcc aagtcgtggc gtttgtggca gcccggaca cgggcaccag 2100  
ccagtcagcg gagcctctc acctccgttg ccagcgaagg cgctcgtag gccttgggaa 2160  
gaggggagag accgtgggtc cgaagggggg tctcccagag tgaagcttct tcatcgact 2220  
ctagagttgc tgattcctgt gatttctcc atgtgggaaa cgggtgttgt gctagaagag 2280  
gctgcgtctt ttacctgaca taaggggggt caagactgac atcgctcac gcctaccga 2340  
aaacgtttac atggcttgtc tcttttttt tctgtcctaa agtcgcctca tcttcacatc 2400  
ccctcatttt ttcttcaca ctcgagagtg tctctctctc tcattaaaag ctccaccaa 2460  
tatttgaaat atctcaacca gaaagactgc aataaataca ttatttcatt cgtgg 2515

&lt;210&gt; 1467

&lt;211&gt; 1940

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 1467

```
aatagattgt actggcttcg gcttacctgc tgtgagccca ctggcaggct cctggaagct 60
agccttcgcc cttgctcttt caccggcact ccctgcatta atttagaaaa agatcctgca 120
gggattaaca ggacctgatg gatcccctgg ctccattggg tcaaagggaac aaaaaggaga 180
acctggtgtg cctggatcgc gtggatttcc aggccgtggt attcctggac cccctggtcc 240
tcctgggaca gcaggactcc ctggagagct tggccgtgta ggacctgttg gaacaattgg 300
ctttcatgat ggagatccat tgtgtcccaa tgcctgtcca ccaggtcgct caggatatcc 360
aggcctacca ggcatgaggg gtcataaagg ggctaaagga gaaattggtg aaccaggaag 420
acaaggacac aagggtgaag aaggtgacca gggagaactc ggagaagttg gagctcaagg 480
acctccagga gcccagggtt tgcgaggcat caccggcata gttggggaca aaggggaaaa 540
aggtgctcgg ggcttagatg gtgaacctgg gcctcagggt cttcctggtg cacctggtga 600
tcaaggacag cgaggacctc caggagaagc aggtcccaaa ggagatagag gggctgaagg 660
tgctagagga attcctggtc tcctggggcc caaaggagac acgggtttgc cagggtgtga 720
tggccgtgat gggatccctg gaatgcctgg aacaaagggt gaaccaggaa aacctgggcc 780
tcctggtgat gcaggattgc aggggttacc aggtgtacct ggaattcctg gtgcaaaggg 840
tgttgctggt gaaaagggtg gcacaggtgc tccagggaag cctggtcaga tgggaaattc 900
aggcaaaccg ggccaacagg ggcctccagg agagggtgga ccccgaggac cccaggggct 960
tcctggcagt agaggagaat taggaccagt gggatcccca ggcctaccag gtaaaactggg 1020
tgtagtcggt gaaccgggtc caaagggtga acagggtgcc tctggtgaag aaggtgaagc 1080
aggagaaagg ggggaacttg gagatatagg attacctggc ccaaagggat ctgcaggtaa 1140
tcctggggaa cctggcttga gagggcctga gggaagtcgg gggcttcctg gagtggaagg 1200
accaagagga ccacctggac cccggggtgt gcaggagaa cagggtgcca ccggcctgcc 1260
tggtgtccag ggccctccgg gtagagcacc gacagatcag cacattaagc aggtttgcat 1320
gagagtcata caagaacatt ttgctgagat ggctgccagt ctaagcgtc cagactcagg 1380
tgccactggg cttcctggaa ggcctggccc tcctggtccc cccggccctc ctggagagaa 1440
```

tggtttccca ggccagatgg gaattcgtgg ccttccgggc attaaggggc cccctggtgc 1500  
tcttggtttg aggggaccta aaggtgactt gggagaaaag ggggagcgtg gccctccagg 1560  
aagaggtccc aacggtttgc ctggagctat aggtctccca ggtgaccag gccctgccag 1620  
ctatggcaga aatggccgag acggtgagcg agggcccca ggggtggcag gaattcctgg 1680  
agtgcctgga cccccgggac ctcttgggct tcccggtttc tgtgagccag cctcctgcac 1740  
catgcaggct ggtcagcgag catttaacaa agggcctgac ccttgaaagg cttactgctg 1800  
catggctgtc tgcatgaacc acgcctgggtg aaggagcctg ggtgagaaac accatccaaa 1860  
gctggggcaa agatgattac cttcagcatg attacaatgt attaccttca gtatgattac 1920  
agaagtccta cttgacaatc 1940

<210> 1468

<211> 2868

<212> DNA

<213> Homo sapiens

<400> 1468

gagatgacct cctctggctg tgatttggca tttcctccgt atctaacttg cctggggggac 60  
tcctgccaaag ccagaggagc agggcacaaa tggaggcaga tcctgctgga gatgggcatg 120  
gggagggggga ctgacagagc acccttggct gctgttagac agttgttcag tcatcacacc 180  
tgttaaacca agttggtcgg gtctgtccag gtgctgtgac tcacctgcc ggctcagaag 240  
agacactgaa tgatacggtg gggagcacag gcctagggga atcctgcagc tgagtatctg 300  
gcttttgctc tgccaatggc ccagtagatt agggggctctg tggcctgttt cctcatgctc 360  
tgagattctg tgcccagccc aggtctctct gttctggaaa caaaggccca gatccccata 420  
tttccttctt gctgttttgt tttggttttt gaagagtctc gttctctctc ctggagtgca 480  
atggtgtgat tttggctccc tgcagcctct gccttcagg ttcaagtgat gctcatgcct 540  
cagcctcccc agtagctcag attacagaca tgcacatca tgccaggcta atttttttgt 600  
atttttagtg gagacagggt ttcacatgt tgcccaggct ggtctcaaac tcctggcttc 660  
aagtgattca cctgcttcag cctcctaaag tgctgggatt acatgcatga gccactgtgc 720

ccagcctctt gctgttttta tactttctcc atagccataa ctgtttttga tggaagtttt 780  
tgtttttttg aatttcttat ttttattacc cctgcatcat ctgctaccct gaaggatctg 840  
gagtcctcga gccgctgtga agcagtcctc aagcggcagt tatggcagtc cataaaggct 900  
cgggcacagc tggaagcaca cgtgacacag atgttggaac aagtccagct agagacagat 960  
gaatatactc aacatctaaa aggagagagg gcccgggtggc agcagagggt atggaaaatg 1020  
tcagaggagg tttgcacatg gaaggaggag aagaagcatg acaggcatcg ggtacaggag 1080  
ctggagagga gcttggccga actcaaaaac tagatggctg aaccctgcc cctggagccc 1140  
ccagcagggc cctctgaggt ggaacagcag ctacaagctg aggccgagca cccgaggaag 1200  
gagcaggaga gtctggcagg acagctccaa gctcaggctc aaaacaatca aggcttgagt 1260  
cacctgaact gggagcagga ggagaggctg ctggaacggg agacgctgcg ggagcaggag 1320  
aggctgcagg agctggagga gaagctgcag gagtaggaga ggctgggaga gcgggaggag 1380  
agtctgcggg agcgggagga gagtctgcgg gagcgggagg agaggctacg ggagtgggag 1440  
gagaggctgc ggagcaggag gacaggctgc tcgagctggg gcggaagcc aagctctggg 1500  
aggagcaggc agagacgtgc atgcaggccc tgcggaacca caccaccatc aaccacgtgc 1560  
tctctcagaa ccatgagctc gactagcagc tggctgggcc acagagcggc ttagaggagc 1620  
tgaacaacga gaataagagt gactacagt tggagcagca agtaaaggag ctgcaggaga 1680  
agctgggcaa gctgaaggag actgtaacct ctgcccaccc aagaagggtt gggaggagca 1740  
cctggaaggt accagccagc agaaccagca gctacaggcc cagttgagcc tcatggcact 1800  
ccctaggcaa ggagatggag gagaacatct ggacaacgtg gaagaggagg ctgagcttgg 1860  
cccatgctga gcatcccga ggacctggag agcaggtggc gtttttcaac tccgctggag 1920  
ccagtgccca ggaggagcag gtatggctta tgtgggcagc tgagggagca aagggtgtgg 1980  
tgccagcgcc tgactacccc ggggtggcctt ggcccagaag gagccagagg tagtggaacc 2040  
agccccaggg actggggatg agtctgtgtg tgggtagact catcaggccc tgcagggatc 2100  
catggagaag ttgcagagtg gctttatgga cctcctgaag gagaagggtg acctgaagga 2160  
gtgggtggag aaactagagc ttcgatccat ccacctctca ggacaggcag acaccatcag 2220  
aaagtaaata acaacatacg agggccagag ggcagcgcca aagacgcggc accaggagga 2280  
ggaggacatc atcaggctgg cccaggacaa agaggagatg aagatggggc attgcagcac 2340  
ctctgtgggg gtgggggtgg ggtgggtgtg agcgtgggca ggggcactgg caccagcgtg 2400  
gcagctgagc acccctccct tcaggtgaaa ctgctggagc tgcaggagct ggtgttgcgg 2460

cttgcaggcg gtcacaacga ggggcatggc aaattcctgg ccgctgcca gaaccctgct 2520  
 gatgatcctg ctccaggggc cccagcccct caggagcttg gggctgctga caagcagggt 2580  
 gatttttgtg aggcgagccg acagcctgga gcctgcacca ggagaggcca gggagggttg 2640  
 tccccatgac aacccactg cacagcagct catgcagttt cttcctgtga tgcgggaccc 2700  
 ccaggagtac ccaggcttgg gcagcagccc ctgcatgcca ttcttttacc aggctgccaa 2760  
 gaacagggag ctaaacaatca ccatcatcta agagctggtc aagaaattaa aaaagaagaa 2820  
 aaaaaagtta tgggggttaat ctcctacaca attcatttac ttcatttg 2868

<210> 1469

<211> 1924

<212> DNA

<213> Homo sapiens

<400> 1469

atatcggggg tgcactggca cagaggaaag gccatgtgaa gcaagaaggc agccatctgc 60  
 aagccaagga gagaaatttc agaaggaacc aaccctacca acatcttgat cttggacttt 120  
 aagctgccag acctagatag cttcacacat aaggaaccac cttagcatcc ttcactcaat 180  
 gctgaaagtg agcatctggt ctgccttttg gccaatgcta aatctcttca acagcatcct 240  
 ttaccgaagc aacattgtcc cagaatctgc tgaagcagca agaaaagagg tcagcagtag 300  
 gaccaagctg catatcttct taggcaggag tgcatcacta ttgaggccaa atggacactc 360  
 actagcaagg tggctggaaa caactgttct agaaagaacc caaggaaaaa tttccaggag 420  
 gaacccaaac agaaaaatct attttataca ttttctacag aaaatgcacc ccatcattgc 480  
 ttatagccca cccacgtgga ctgctcattc tgtgaatcat gttttacagg tgcgttttgg 540  
 ctactgaaag cttggagtca aacctgtatg cctcttcctt tgtctgcca tatattttgt 600  
 atattaggcc tcggccctgg ctccaattta gattaccatt tttccccta ctttgtccct 660  
 ctctttgacc ttttaactta cttctattct ttgtgtgcag aactttgtaa gccctgttag 720  
 atccttgctg cagcaatgta cataagcaat gtaataaaca gaaaggatga gatattcaat 780  
 gcccatatca aatcatcctg tgtgtgtaga atcacaagtg catttcattc tagacacaag 840

acataat ttt gcacatt tca aaatgcagta aacgatt cct agaatgctat tttagaagct 900  
ttccttagga aacagcacca cgtggcataa ctcacctacc ccagtagtgt gatctccctt 960  
tggtcctgtg taggaagtgg gagtttctcc cctcctcctg tgccagctgc tccggtttct 1020  
tttctcctga gtaaagtac attcatcttg ctcgaaagta cactctccag gtggaggtgg 1080  
aagtttctct gcaagaaaat agcagatgtt gcaatcactg agactctttc aatgactctg 1140  
tgttgctagc agcccactct gcatgtatga atgttgtctg gccatatgcc atgcgatgga 1200  
gaggcagccc ccattggtgg cccacctaca cggagccact gcttcagct agaggctgca 1260  
ttccactgcg ggtcctgcca cagacataga gaacaatcag atatacagat ctaaaatact 1320  
gggctacttt gagaaaaaaa ctttctctga cttgtgaatt tttatgaatt tctttttata 1380  
aagctctgga aattataggt atattgcctt tatgaaaata tggaaaataa taaaatttca 1440  
taatgcaggc actttcttca gaaatcctgg atgagtgaag ggtatcctca taacaactcc 1500  
acagttgctt tgtaggtagg ggagaatgtg agagtgctaa atggactcct ggaggcatag 1560  
ctgtgtggaa caaatgactt cacttctctg tgccttagag ttcttatctc taatgtggga 1620  
atattgatgg tagtcacttc atgggtctgt gaggattaaa tgagatggta tatgtaaagt 1680  
gatcattttt aatgtgaagt tctcaataat taaatttgag aacttatttt gccaccaga 1740  
ggtttatttt ccttttccca aatccaatgt ttatgtcttt gaatgctatc ttcaataaca 1800  
ttcataatta ttagaatggt gcttcttccc aatttattgg ggacttttcc ttgactaaa 1860  
cttggttgta cctccctata tccagattct tagccaaatt tttctaataa atagcttggt 1920  
tcat 1924

<210> 1470

<211> 2112

<212> DNA

<213> Homo sapiens

<400> 1470

acttgagctg tctctgctgc ctctccaggg gccacctggc ctcaggacc caggcaagca 60  
ccgtgggttg ggaaccaacc tggtggaaaa ctaaaatcag cccatcttca ggtctaccgc 120

ggcggatgaa gcctcacgca gaacagatac agttgcttgg caagcagggg gctgcagttt 180  
ctcaactttg ccctttgggtg cttgtaagtg gacatatctg cagagaagaa aggagacatt 240  
ttcaaagaat tgctcttact gcctcctcct tgtcctgtgg ctctcagctc aaatggcacc 300  
tcctccaaga agccttcctt gattttctac ccttctctgt gctcccagtt tcctggactg 360  
cccgtgccac agacgtgctg gcaactgtctg ttgacatggc ttgctctcta cttccccact 420  
ggactgggca ctctgcaagg gcaaagactg tgtttggccc ctctttgtgg ctgcagctgt 480  
gccttgcaca gggttcaggca cagtacgggt gttcactaat gtttgctgaa tgaatcaatg 540  
aacaaatatt cccttcaggt tctgtctcac ctctggactc ctgccccaca ggggagaaac 600  
cctttttgaa agcacctgtg acatagtcca agatcaccaa tgtcgggcga gggtaggaca 660  
tgcaccctgg agtcagcca tacctcagca cagccctcct gccacatcg ccaaggccct 720  
gtcagaggca tgacaaacag cttggctgat ggcttataat gtcaaagatg atggaaacag 780  
ggaggcgacg gctgaaagaa tgggttgggg acgcttgtca taactttatt tgtgggagac 840  
acactgtcta ccttgattct ccaaactgcc ctaaaaagaa catacatttt tacagaggag 900  
gaaaccgaag cttgaagagg agaaatgaca tatccaagtg ccccatgaag gaggacaaaa 960  
gcccaggagg cagctgtcgc atcactcctt tcctttccct gcacatccgc tacatccctt 1020  
ggtcctactg atttcacctg ccgtttcctc tatgtccaac gttactcagt ccaagtcccc 1080  
aagcatttcc tgctcgcaca gttattctac cccatcctcc cctgtgtctc tcaaactcct 1140  
ccttcttttt tttttttgag acagactcct gatgcccagg ctggagtgc atggcgcgat 1200  
ctcggctcac tgcaacctcc gcctcccagg ttcgggtggc tctcttgctt cggcctccca 1260  
agtagctggg attgcagcgt gcgccaccac acccagctga tttttgtata tttggtagag 1320  
ataaagggtt tcaccatgtt ggccaggctg gtcttcaact cttgacctca ggtgatgtgc 1380  
ccgccttggc ctcccaaagt gctgggatta caggcttgag ccactgcgcc agcaaactca 1440  
ttcttcttct tacagactct cttatttgag ttcacctaaa agcctgagat aaggaattgg 1500  
atgtacagaa tttatttgca tggccatccc aggaaacact tggaagtagg ggagtgggaa 1560  
aggaagacag ggaggggtag gcagccagga aaagggttat cgagcaggtt acactgtgga 1620  
taacgggggc ttgattccac cagacctctg ggagcccatg aataacacct cggagtcttc 1680  
ctgcctgcgg agttggggag cagggtattt atctactagg tcctatgggg gcaggggtgt 1740  
tcattctcag gcacctctga cctgcttcac aggcggaag agtgtgctcc agagttgtta 1800  
aagaaagtct ttaggtaaag agacacagtg ggctgggcac agtggctcac gcctgtaatc 1860

ccaacacttt gggaggccaa ggcgggtgga tcacctgagg tcaggagttc gggaccagcc 1920  
tgaccaacat ggtgaaaccc cgtctctgtt aaaaatacaa agatcagctg ggagtgggtgg 1980  
tgggtgcctg tagtcccagc tccttgggag gctggggcag gagaatcacc tgaaccaggg 2040  
aggcggaggt tgcagtgagc cgagattgcg ccactgcact ccagcctggg tgacagagta 2100  
agactctgtc tt 2112

<210> 1471

<211> 2089

<212> DNA

<213> Homo sapiens

<400> 1471

atttctccct gcctttgcct gggcttgtcc tgaagcctgc tcatgggaac agctggaaag 60  
aaccatgtgc cgccagtctg agctttttat tttgttttac ttagaaagat agagacaggg 120  
tcttgccatg ttgccaggc tggctctgaa ctcctgggct caagtgatcc tcctgcctcg 180  
gccttccaaa gggctggggg tacaggcgtg tgccaccgca ctcagccgca gccagtctgt 240  
tttcaaagat ggtctttggg ttaatgacaa ttctctctct gcttactctc caggcagtgt 300  
ggctttctga atccaaggag gctgggcata gggagatggg atttgtttgc ccggtttgga 360  
ctcagcattt tttgtactcg atttaataga ctcataaaat gtcaaagggt taagttagct 420  
tagagttgat ctggcccaaa cctggctgat cagaatctcc aggggaagtt ttattgaaat 480  
gccagatctc tgcgttctga gatcctgatt tagtaactcc agggttggaa cctgagtttt 540  
ttgttttttt gtgtgtgtgt gtgaaggcaa ggtcttactc tgttgctctg gctggagtgc 600  
agtgggtgta tcacagctca ctgcagcctt gaattcctgg gcctaagcaa ccctcttgcc 660  
tcagccttcc aagtagctgg gactccgggg gtacaccact gtgcccggct aattttaaat 720  
gtttttgtag agatggcatc tcaactatgtt gccaggcca gtctcaaact cttgagctca 780  
agtatcctc ctgccttagc ctctaaagt gctgggatta caggcatgag ccaccgtgcc 840  
tggctgatac tagcattctt ttttattttt tattattttt ttaagataga gtcttgctct 900  
gttgcccagg ctggagtgca gtggcacagt ctcagctcag tgcaacctcc gcctcccagg 960

ttcaagcaat tctcctgcct cagcctccca agtagctggg ataacaggca catgccacca 1020  
cgcttgcgct tgatcgtggg aggcagagct tgcattattg tgccactcca ttctagcctg 1080  
ggcaacagag cgagactctg tcttccaaac aaagcggaaa aagattatct gcgagaatga 1140  
ctgcattggc cccttgggtg ggagggttc tccagggcaa ggtgaggga tgcccagtgc 1200  
tgggagtgt gcctggagag gagtcagttc cagtggcggg ggccctgggt tttggctgag 1260  
gactgcgtgt tggcagctgc tctgcctctc acagcccttc ccagctgcac acgtcgtgag 1320  
cgtcagtgtg caatcacagg cctgcctcct ttgggccact ttgtgaccat gttttttgt 1380  
tgtggggcag ggtaatttca ggatccaaat tgggtgcagtt ggatgttctc agccccgaga 1440  
ggcagctctt cccgttctag gctttttgtt ttgttttgta gaaatggagt cctacgacgt 1500  
tgcccaggct ggtctcaaac tcctgggctc aagtgtcct cccaccttg cctcccaatg 1560  
tgctgggatt acaggcatga gccactgtgc cgtgctgatt ttcttgatac tttttttgt 1620  
agagctgggg tcttgctgtg ttgcccaggc tggctctgaa ctctggcca caagccaccc 1680  
tcctgcctca gcctcccaga gtgctgggat tacatccct tcttaccttc tctgtcagag 1740  
gagccccac agcatgtgag tactgagtca tgcggtcttg tggttgctga acgggctctg 1800  
ctgctctggt cctaggctct gtatgtggat gtgatccgtg tgaacagcta ctactcttg 1860  
tatcgcaact acgggcacct ggagttgatt cagctgcagc tggccgcca gtttgagaat 1920  
tgggtgaaga catcacaatc ccattattca gagcgcgtat ggagcggaaa cgctttagg 1980  
gcttcaccag attgtatata ttctaccag atggagataa ttacagcttt aaaaattttt 2040  
atttttcat tttatttcac acattgacat taaattttta tggacacat 2089

<210> 1472

<211> 2050

<212> DNA

<213> Homo sapiens

<400> 1472

atcatctggg catgtatggt atctgtatct acgtcaagac ctgggctttg ctccacttgg 60  
agtcagctga ttggcgggag ggcatctgaa attgagagga ggtttcagga cgttttacca 120

gccctttagt ggggatctgt ccgggactgt gcagtctgaa cctgcaactg taaaagtgt 180  
gtttggactg tggacaagtt aggttataaa ttttgacctc tgaatggacg caaccaatat 240  
tagcctttaa tgcagttaga ctcatTTTTgt cagaggctctg gaaaattagg aaaaactacc 300  
atatgtccaa gccttcatgc ttttcgaaaa tcaggattca taccatgagg gaagatgcca 360  
gctgctagct ataccaaagg acagaatgga aaaaaggctc tccacaagcc agagagccaa 420  
actcaggcag aaagcaatga agaagaatta ggacttttaa atgtcctaca cccaagctgt 480  
tttagcagct ccaaccacca cagccagaac gcacctggcc tctgctccac ctcaacagct 540  
cccactgcag taccaccata cggggccctt agcactggcc tctgcgttgg accggattgc 600  
cttgatgcta ccaagtgagg catcagacca ataagaggga gctactctgc cgcctcagta 660  
taatgagaga acagagacgg cctctccctc cagtgcctga cagggaacat gatttagcaa 720  
ggaagtgcca tggccggagc aagggaatta ccatttacag ggatggccat ggggtggcttg 780  
gatgagagtg ggcaacctgt cagacattac tggacatcca gccattttc aacatctaac 840  
ttgtgaaatg gaaaaactcc accccacttt atacaatgga tccccagaaa atgactgac 900  
tctatgtgtc tatctgtgct acccaccgt gtacctgagc agatgtgtag tctctcctaa 960  
atatgtttct ggctgcagac caaagaaggt ccagagtctt ggtgcctcca tgaacaaat 1020  
ccaaataccc caaacctgaa gggaccattc tggatgcaaa ccctaattgg ggctccaatt 1080  
gataagggga catggcccat ctggaatatt cacaacatt cttcctgttt ggactcagga 1140  
aaggggtacc aaaacaggaa gcctcactag gaatgacccc ttccccgctc cagagacaaa 1200  
gaaacagaag tttcaacat aaacgtggaa tgaacaagga agcctctgca tcagaaaaat 1260  
cgaggcaagc ctctggaaca cagccagtgt gcctagtgtg aggagaaagg cactgaaag 1320  
gatgactgtc ccaaaagaaa ggaccaaggg gccagaaaaa ggaggaatac gatgaggaag 1380  
aagctcacag tcaaataatg gagcagggtc actgctctga ccacagagag tgatgcctgg 1440  
gggctctcct taatcactca gagacaatta aaatttcccc acaggaaccc tgggtacaac 1500  
tgacagtgag gaaaaaatta attgatttcc tgggtgatac tgggcaaact attcagtttt 1560  
aacactttat gagcaaaaag caccaaatg attgtacctg tgataggagt tgcaagaata 1620  
atgcaacaaa aggcttttct acaacctcta gaatgcaaac tagaaagttt ggacctaaagg 1680  
cactgctatt tctatatgta agaatgcccc attcccttgc tgggaaaaga cctattatgc 1740  
aaattaaata cacaagtaat ttctccccag agaaacaact atggctgcag gtcctgctaa 1800  
agcaagcact gcaacaaaga tgttactcac ttgccttaag aagaaacaag aattctccct 1860

cagaagtcta tgagagagtg cgtaattgtg aataggcaga aggaatccca ggaaaaacaa 1920  
gaaatataca gtgagtgcac atagaaaaaa tagaaggggc tactgagacc tgggcggcgg 1980  
ggaggaggcg aataaaaaaa tcagtataca ttaagaaagg aagccttaga aggaatacag 2040  
cctgtctttc 2050

<210> 1473

<211> 2145

<212> DNA

<213> Homo sapiens

<400> 1473

gtgatggaat gtcctgaggg gataaaagct ggagtcggtc tcagcacatc tcagttactc 60  
attttgactc gtttggacaa gtgagttact acagcgctga tttggaaaaa tgactagaaa 120  
gctacctcca atttctcggc ctcaacccca gcctcatitt ctttctgttc cttcccgttc 180  
tcgtcttcca gccctccttc ccccgttac tcctcaaact tcctgccgtc agcctcctct 240  
ccagagccgt ccaagttgtt cgattttctg ccctaccctg ttgcccaagc tgactaatgt 300  
cgcccccttc cagtacccta cctcaaggaa cttcctgccc ggcccttcct ctgttactac 360  
cagggcgctc gtgtgccgcc gccctgttcg tcaggcaccc ctttcccggg gtccccctat 420  
ctttccccct caccctcttc atagcccttc tttctagtcc cctgtactct agtccccact 480  
ccctatccag ccacccccaa ccagacctga cggcttgcaa atctaccct ggagaaatgg 540  
tttccctcct actggggcag ttcccaggcg gtccagaatt gccaggactt gtggattccc 600  
agcagcgacc tggcagacac ggggaatcca agaccatggc aagcgaacat tcggcctggc 660  
ctgcgccttt cctctcctgc ctgggcagcc agactgcaca agcctctgca tttgaactgg 720  
cttctccgtg gaacttgggt tgtaaccacg gagcaaactg caggaccagg ggcagagaag 780  
gtagggggagt gaaaagcatc gaatctgttc tcaaggaggg aggtgattgg acaacgtgag 840  
gtctagtttt atgttcatta cctcctgggt ttgccagttg atggcgagcc ttttctctgg 900  
cagtatccag aggcggttct agtaaagagg ctggattccg agaggccaga gcggtatcat 960  
acgaacgccg ttgcctggag acggagtggg gtgccattgc ctagagactg cagaaggccc 1020

gcagccaagc gagtggttaag aggacgccga gagagccccg gacccacgga gcagcccca 1080  
ggctatggcg ggacacccga aagagagggt ggtcacagat gaggtccatc agaaccagat 1140  
cttgcgggag ctgtacctca aagagttacg aaccagaaa ctccacacgc agtaccatgt 1200  
gaatcccctg cgcaaggttc acaggattac gaggaagcct atgtcttggc atgataacct 1260  
ggaggaaccc gcagacgcca ggtttctgaa tctcattcac catgctgccc aggggccaac 1320  
gaagaagtac ccggaggcac agactgaaaa ccaggaaatt ggggtgggact cagaagcctt 1380  
ggtcgaccca gaacgccgtg accacaggat gaaccacttc aggggtctaca gtgacatcac 1440  
tctgtacaaa gctaaaatgt ggagcttggg agaagatgat cgccacaagt agcatctcag 1500  
ctgtggagtc aggcctgga tttaatgccc taaatatcca ctgcctagaa gactaaacat 1560  
tattttaacc ccccgctccc catccataat tcatggataa tggcaaaaat taggaagcat 1620  
aaaaaatatg cggaagaagg aaataaaaat tgcccattat ctcaccatat ggaagtgact 1680  
aatgttagca ttttaaacca tttgtcttta aaattaataa taaattgcat atatttattg 1740  
tgtacaatgt gatgttttga aatacgtata cattgtggaa tggttaaatc gagtatctca 1800  
catacttatt ttgtggtgag aggacttaaa atctattctc ttagcgattt tcaagaatac 1860  
aatacatgtt tattaactgt agtcactaca gtgtatgaca actctcttga acttattcct 1920  
cctaactgaa attttgtatc ctttagccaa catcgcccca attcctaccc ctaaccctg 1980  
gtaatcacca ttctaactc tacttctatg agtttgactt ttttagattt agaaaatgtg 2040  
gtatatttac ttaatggaat acaattcagc cttaaaaaag aaagaaatcc catcatttac 2100  
agcaacatgg atgaacttga aggacattat gttaagtga ataag 2145

<210> 1474

<211> 2107

<212> DNA

<213> Homo sapiens

<400> 1474

agatgcgagc gcctgcgcag gtacgcacgc tccgctggag cctgggggtgg cctggcagtc 60  
gtggccgaga cgtgtttgct gcacttcggt gcgcacaggc actgcggtgc caacctcttg 120

gttccgccct cccccgcag gcgcccacgc gtgacctcgg ccgcccacag gccttcgact 180  
cttcccggac tccaggtccc aggccgcccc gctccaccct gcggatgatg gagacaaagt 240  
ccccacaag cccctcatat ggggcaaggg ggaaggtacc acctggggcg gggcctggct 300  
ccccactgag cagaggtgct ggccaaggcg ctccccttag tgagacaagg tttcaccatg 360  
ttgcccaggc ttttctcaaa ctcttgagct caagcaatcc gccacactca gcctccgaaa 420  
gtgctaggat tataggcgtg agccactgca ccagcccca ggtggcaagt ctttctgata 480  
ggcactgctc caaagtgaat cactctgtgc taagcccccg caagggagtg cttttgcagc 540  
ttacagctgc aactctgtca tctcaggagg tccttgcaac agtccccctt cagggtataa 600  
gaaactgagg cctctactca acctcacaga gcaagctaat gccagactaa aacctctggc 660  
ctccaaacct catgcccttt ctttttgtaa gctacacaga ctgtcagggc aaatgtccac 720  
tggtataaag catgagatga tgaatggacg gaaattaacc aaaaaggtca tcaacacatt 780  
ttcaacagat ccatcaatgt gcactcaaag aagctgagac aggcctaacc tttaaaggct 840  
gatgtcaagg aaggggagca gcaggatggt actcggctctg acccaggggg gtcgctcccc 900  
tgagcctatg tgtgtttgga gtggacgaga atgggagaga gattagaaaa acagcagcat 960  
catgtgaatt acagatgcac aggaaagctt acagcctgtc tagacaaatt cacttatgtt 1020  
acagatgagg aaactgaggc tcagaaagag gaagggactt gccaaggcc acatagcaaa 1080  
ggaatagcaa agttgagaca aaaataatgg acattgtgac tctgagtcaa gtgagaaaca 1140  
gagagactga tggagaagtg tgtgtgtgtg tgtgtgtgtg tgtgtgttta tgtgcatgca 1200  
gtgtgcactc actcaggggg ccagggtcct gaatttagaa acactaccac caagaaggca 1260  
ttatgcctac cctaccagg cagtgggggc tggagccagg gcctgggggc tggaaccagg 1320  
gcccagggcc tggaggggat ggtaagcctc cagccccacc ttctccagga aggggttggt 1380  
ggtctggcac gggccaagcg tacctggcca tccacaatgc tcacctcac cacggtgatc 1440  
tctggccggg taagcagctc tcggccctct tggctgccta gcttcagag gcgggactct 1500  
tgctgcattc ccagaagctt cttcaactcc gactccagga aacctgagag ccagagagat 1560  
ggcaagggac agggagatgg cagggaacag gcaggagtag gatggagcag cccactggga 1620  
accaaggac ccggaggtgc aaccgctccc tgagcctcat cccagctctg tgtggttctt 1680  
gctcaccctc agccacagcc ctctcttctt ccaggacgta gagccagcca ggtaccaccc 1740  
ctccttcgcc ctgccttccc caggaagctc actctttgag ggccttctct ggcagcggca 1800  
gcatgagagc ctgcgtcttc acccactggg gacagcatgc aaggggcagg tatttgcccc 1860

caccaccaac caactcaaga gcctggatct ggaacccaaa ctgcctgcac tcaagtccca 1920  
 gctctgcccc tctactagctg tgtgacatcg ggcaagttct cactgtgaac tggagatggc 1980  
 aataggacct acctcagagt cgtaaaatgc aggattttat gaaaagtgc taaagagggt 2040  
 ctgccccatt aatggctatg taaatgtgaa ccacgatatt catcatatta tgtatgctat 2100  
 caccact 2107

<210> 1475

<211> 1825

<212> DNA

<213> Homo sapiens

<400> 1475

agcattctta taggagtctc cagcctctct ttgcagtttt caagacagga agttgacttc 60  
 ttccttgacg ctccctccac agtgaacaac ttggctgtca gagaggttct gattacaaaa 120  
 cccagtccag ccacaaaaag cttctgcaga agcctgccta atgtttacaa acctacgatg 180  
 cagccactac aattatcccc atttcaaggt cgaagaaatg gagatttata gaagttgtca 240  
 aatcgcttac tagcacacag ctaataagta gtaaagccat ctctcaaate caggaaatct 300  
 aactgccctg cctgagctct gagtcaaggg tcctactttg gctgccagcc agcgacgact 360  
 tcaagggaat ctggaaactg ttcttcagga agaaacccat tagtttgga ctggagaatt 420  
 cctttgcatc agatactaaa atgaaagaac cacttttagg tggtagtgt gacaaggcag 480  
 tggcatcaca gctggggctg ctagatgaaa ttaagacaga acccgacaat gctcaagagt 540  
 attgtcatag gcaacagtcc agaactcagg agaatagaat gaaaataaat gctgtgtttt 600  
 cagagagtgc ttcacagttg actgcaggca ttcagctttc tctggcatca tctggcgtga 660  
 ataaaatgct tccttcagtt tcaaccacag ctattcaggt ttctgtgct gggtgtaaaa 720  
 aaatttctca gaaggggcaa actgcttata agaggaaagg atctgctcaa cttttctgct 780  
 ccataccatg catcactgaa tacatttcat ctgccagttc accagttcct tctaagagaa 840  
 cttgttcaaa ctgctcaaaa gacattttta atccaaagga tgtgattagt gtccagctgg 900  
 aagacactac ctcttgcaaa actttttgca gcctatcttg tctttcatca tatgaagaaa 960

aaagaaaacc atttgttacc atatgtacta atagcatttt gaccaagtgc agcatgtgcc 1020  
 agaagactgc tattattcag tatgaagtaa aataccaaaa tgtgaaacat aatctttgca 1080  
 gtaatgcctg cctttcaaag tttcactctg ctaacaactt catcatgaac tgctgtgaga 1140  
 actgtggcac ttactgttac accagctcta gtctgtccca catacttcag atggaaggac 1200  
 agtctcatta ctttaatagt tcaaagagta ttacagcata taagcagaaa cctgccaaac 1260  
 cacttatatc tgttccttgc aaaccattga agccctcaga tgaaatgatt gagactacga 1320  
 gtgatttggg gaagacagag cttttctgct ctattaattg tttctctgca tacagtaaag 1380  
 ctaagatgga atcttcttca gtaagtgttg tttctgtggt gcatgatact tcaacagagc 1440  
 ttctttctcc aaagaaagat acgactccag ttataagcaa tatagtgtca ttggcagaca 1500  
 ccgatgttgc cttgcccata atgaacactg atgtcttaca agatacagtt tcttcagtaa 1560  
 cagcaacagc agatgtcatt gtggatcttt ctaagagtgc acctagtga cccagtaatg 1620  
 ctgttgctag tagtagtacg gaacagccaa gcgtttcacc atcttcatca gtattcagtc 1680  
 agcatgcaat tggttccagt acagaagtac aaaaagacaa tatgaaatct atgaaaataa 1740  
 gtgatgaact atgtcaccca aaatgtacat ccaaagtaca aaaagttaaa ggtaaatac 1800  
 gaagtattaa aaaatcttgt tgtgc 1825

<210> 1476

<211> 2174

<212> DNA

<213> Homo sapiens

<400> 1476

ggacaaccac cccacgtca gcaatgacac ttcgccgcag taaaggcggg tgctagcaac 60  
 ctgcttcttc actgttaagg tctacagcaa accaatcctc ttctccgtt agtgcgagtt 120  
 ccggccaatg acgttcgccc tcttaggttt ttttttttag cccgccctcc aaaagcgtga 180  
 cagccgttgg gtcataagtc tacagggcag aatgttcacg tggcctatct cagcaccag 240  
 agttcctctg accagagggt tttttttttt ccttttcctt tttttttttt tcctgcaggg 300  
 aggcattatg ggtttgtggt ttttttcccc cccactggg agaggaagtg tctacgtggc 360

ctgcggaaat aggataggcg gaaatgagct aaggttcccg cgagtgggga agcgcgaggt 420  
caaatctggg gccacgcccc cagtcctgtg gcgcaactcc ccgaacacgg aaaaaaagg 480  
cgcagtgggg gttctgctgt gtttgcaagt gagggctcgt agtgcaacgg gcgcaaggca 540  
ttaaggccag tgtgttagtg cgcgggcagg ctgcgctggt gctggggttg ctgtgtgagc 600  
ggccctcgtg gctcgggagg tgctgtgttt gcgcaggcgt gcgcccctgg cgtcgggact 660  
ggtgagagcc acggcgggcg cgcgcgcgtg cgtgatgggt ggggcgggtg agggagggggt 720  
ttgctactgc gcgcaggttg ttatctatct ctgtgttata ttgaaaatg ttctaataaa 780  
aaggaaaata aataattaag gaaaggcgac aataacagat aaaggggcac tgtcagaaat 840  
atcttggtt tccgtactga ttttaattact ttaaaaatac acttcctacg ttttcctccg 900  
tgccaaaatc ctgtcgtaaa ccacggccct ccaatgattc agagccaaac ctttccatcg 960  
ccgcattagc aactccaaag ggaggcttct ttcaagttct ctagtatcgt cctccctccc 1020  
ctcctccaca cctaccccct cccttcaagg ttgcgtgcag ttctcttggc acaatacaaa 1080  
ttttcctgtg agaatatcta tctacgacag ctttcccctc cgtaggggac tccggatttc 1140  
tgtggcgact gaggcgctct tacctttgcg tctgatctc caagcaagca cactgacctt 1200  
cttcaggcaa atacgcactg ttaattttcc agaaagtct gtgagtaagg ttatacctc 1260  
tcgagtctgc cactagatgc cgccaaatcc cagcaaagga ttggctgttt ggtccctggg 1320  
attctgggat tttgtttccc tccccctcc cttttctgat ttgctgaacg gtaatatcta 1380  
taggcatcat ggatatcgtt cattcctagg aaaaaataaa atcaacttct gtaaatagca 1440  
ctagtaggca ggggactgtg acccaagatc caaataattt tgctcatttc tttccttttc 1500  
tccttgggtt aaaaaaaaaa aaaggccct ctccatccct cttttctttt gtccttgctt 1560  
tgtttaatca aagagttaat gaatgacgca agcactgatg ctgaagatcc taaccctttt 1620  
tcctcacctt ttcaaatgct cgcaactcac ccaaactgaa aatacagata gctgttccgt 1680  
cagtaaagat agataagaac tcatcagtaa aacctggact ctggtattga aaactgattt 1740  
tccttttctc ttgaaatttg tatcagatat gtgtttttgc accctatttt ctgtagtggg 1800  
attggtaaac tttattgtgt ctttggggta agagaaagag acctaatgt aaacctcatt 1860  
ccaccactta ctagtctcag taccctgggc aaatgattta tgttttgtga tcctcagttt 1920  
ttttgtatgc tttctatatt ttagatgctg tggtatatcg ttcacgttga tttttttatt 1980  
catcaccaag tccttattag atgagcacta ctggatcaaa gtcaaacaac aaaaatcata 2040  
cccccttcaa ttatctatct tatatacttg tacaccacac aggagaatcg cttggactgg 2100

ggaagcagaa gttgcagtga gccgagactg caccactgca ctctaacctg ggcaacaaag 2160  
tgagactcca tctc 2174

<210> 1477

<211> 1791

<212> DNA

<213> Homo sapiens

<400> 1477

tgaggctctcc attggaatct ctcccttctc gtatctccag ttgcatttga tgttaataacc 60  
tcatagcaaa tttatccctt ttttaagtacc cagagccggc ggtgtagagc tctcgagcga 120  
gcaccccgcg tagtccccaa gtgcgggact gggcctatgc tactacaggc gctcgctgcc 180  
taagcctgtc tgtgtgtggc agtgtcctag tcgtcctccc ctctccttc ggcattctgt 240  
ctgcattagt ctgtcccagg cctccgcagg cgccgatgat taaatcatca tcattaacca 300  
gggcctgccc ccccatccc cggcagcagg ggggagaatg ggggaataag atcactacca 360  
agtccttggg ggtctctcac tcccatccc ccggcaccct ctccgagact ctgcaaagcc 420  
caagaaactc cctccgtgaa gccgggagaa gaccgccat ctggacgaag ctccgctacg 480  
cggacgccga cagggcggca ttacgaggag aggaccagg aggggcttct tcagcagggt 540  
cgctgtcaca gaagaccgac gaccctgagc gggtagcggg cacagactgc caggcctttg 600  
ggggtaggag ggggcagtct ttgcgaggct ccgaaagtta gtcttgaggt cgcgtagggc 660  
ctattatgat gatttctaca ggaggttgaa gagataagac ctttccctgt gctccccccc 720  
ccccactcct taattacgga ttgagcaggg gaggggcccgg tggggctcag gtgagcacac 780  
agggagaaag ggacgtgggc ggggccttac agagggtgag cgaatccgaa aagacctaga 840  
acctcgttgc tgggagacaa gtcccgcct gcaggcggca ccggaagtgg ccggctggga 900  
tcagccttta agatggcgtc tctcagggg ggccagattg cgatcgcgat gaggttccgg 960  
aaccagctcc agtcagtgt caagatggac ccgctacgga acgaggagga ggttcgagtg 1020  
aagatcaaag acttgaatga acacattgtt tgctgcctat gcgccggcta ctctgtggat 1080  
gccaccacca tcacagagtg tcttcatact ttctgcaaga gttgtattgt gaagtacctc 1140

caaactagca agtactgccc catgtgcaac attaagatcc acgagacaca gccactgctc 1200  
 aacctcaaac tggaccgggt catgcaggac atcgtgtata agctgggtgcc tggcttgcaa 1260  
 gacagtgaag agaaacggat tcgggaattc taccagtccc gaggtttgga ccgggtcacc 1320  
 cagccccactg gggaagagcc agcactgagc aacctcggcc tccccctcag cagctttgac 1380  
 cactctaaag cccactacta tcgctatgat gagcagttga acctgtgcct ggagcggctg 1440  
 agttctggca aagacaagaa taaaagcgtc ctgcagaaca agtatgtccg atgttctgtt 1500  
 agagctgagg tacgccatct ccggagggtc ctgtgtcacc gcttgatgct aaaccctcag 1560  
 catgtgcagc tcctttttga caatgaagtt ctccctgac acatgacaat gaagcagata 1620  
 tggctctccc gctggttcgg caagccatcc cctttgcttt tacaatacag tgtgaaagag 1680  
 aagaggaggt aggggccaag cccccacccc atccactcc ccttcctcc ccagatattt 1740  
 atgtgaaatg aactgcagct ttatTTTTTg aaataaaaac ttttaaaaag c 1791

<210> 1478

<211> 1042

<212> DNA

<213> Homo sapiens

<400> 1478

agctgccatg ttgtggggat gctcaaggag ccctgaggag aggcccatgt gatgaggagc 60  
 tgagaggact tgggcaaaa gccagtggag aattgaggtc tcctgtcagt agccatataa 120  
 gcaagtattc tggaagcaca tcctccattc ccagtcaata tcttaacttc aacctcatga 180  
 aagaccttga gcctagctca gccactccca gactcctgac ccacagatac tgtgtgagac 240  
 accttgaatc acagatagtt ggagatgaaa aggaccttag aaaccatgag aaacaccatg 300  
 ggcgaggaga ctggggagct ctggagccat aaacctggct tcagggtcca gttctgccac 360  
 tcaccaactg agtggccaag gacggcattt ttcagagaac aggaggaggc tgcttcctta 420  
 agtatgcct gggatcacat tcagactgga gatgttgcca gaagcaaata cacctcggtg 480  
 gggattctgg tcgaccagg agaccctctg ctctgaggg aactgctgag gggcttgggc 540  
 tatgactcca ggaccaagag ttttgggaga gactttcctt ccctggacaa ggaaaaggaa 600

gtggagctac cagctgctgc tctgggaggc tagaggctca tctctctacc atgcaccctt 660  
 tccgaagctc tgttctctga gggcttctgg aaatacccg c tttaatcaga gttaagccgg 720  
 atttgaaggt tgcgatgatt agatgtgtca aaaaaatttt acatctaata acaccaacg 780  
 ctgtcaagaa tgtggaaaaa aacagacatg tatgcattgt tgatgcgagt gtcaattggt 840  
 gcccatTTTT tggaggaggat ttgctagtat cattagaatg tgaaatagat atgctttcag 900  
 actcaacatt tccacttcta agagtcaatt ctagagaaat atgtgcacat ggacacaaag 960  
 agtcgggcat gaagatgttt gcagaaatgt tgtttgcaac tgcaaaaaac agtaaaataa 1020  
 aaagccacca aatcaaaaaa cc 1042

<210> 1479

<211> 2766

<212> DNA

<213> Homo sapiens

<400> 1479

actccttttg gctcatgctc tgttgtgtatt ttttcaaggg aatagaagat aatgatgaac 60  
 ttccctctgc caaaggccgc aagggtgttg ggagtctggt ggtgtgtgag aacgggctgc 120  
 ccatcaagga ggggctcagc tgcaatggcc caaggccggt ggggctgcgc tccacactgc 180  
 agggccgcgg ggagatggtg gagcagctac gggagctgac acggctgctg gaggccaagg 240  
 acttccggtc ccggatggaa ggcgtggggc agctcctgga gctctgcaag gccaaagacgg 300  
 agcttgtcac tgcccacctg gtccaggtct ttgatgcttt caccccaagg cttcaggatt 360  
 ccaacaagaa agtgaaccag tgggcgctgg agtccttcgc caagatgatc cccctcctca 420  
 gagagagctt acaccccatg ctgctctcca tcatcatcac tgttgagac aacctcaact 480  
 ccaagaactc agggatttac gctgctgccg tggctgtgct ggatgcatg gttgagagcc 540  
 tggacaacct ttgccttcta ccagcgttg ctgggcgagt gcgtttcctg agtggccgtg 600  
 cgggtgctgga tgtcacagat cgcctggcag gtgagcacc cagcccccac cccaccccat 660  
 ctctggcag atttctgttc tctcctggtc tgtggttgaa ccattcacc agttatctta 720  
 gacctgaaat aatccccccc aatcatTTaa aattttgaaa atctgctttt tttgtgtgtg 780

acaatctcca tattgccaga agacaatfff gtttttgatc aaaatgaagt aggtttgtac 840  
aaaagcaaaa gtgtttttaa aaaactgtta cagggtgaat ctccctaatac agaaaattag 900  
aaatgctcca aaacctgaaa ctttttgagc gctgacatga cattaaaaga aaatgtacat 960  
tggggcattt ccgatttcag atttttggat tagggatgca gaactggtat catgaaaata 1020  
ttccaaaatac agaaaaagag ccgaagtact tctggtacca aacatttttag ataagggaca 1080  
ctcaacctgt gtgcgtttct tctccttgc aaacaaggct gcttctagcc tatagagtac 1140  
ctttgtgtga gtcagaaaaa agcctccttt ttcagacaga ccatgcctag tgggtgcata 1200  
tggcttggtc agttgacagc accatcaaga gaattagaaa aagttgccat gtacaacttt 1260  
agcatgtgca gcctggcaag caggcaccag ctgggtttca acccctcagg accccttggc 1320  
cagtgtggg actgtattat gtggagacgg ggccttagcc tgagtctact cagccttgct 1380  
caagcttcag ctggtgaagg gttgctccaa tctgtttct gctttgagtc tgcaggagaa 1440  
gtccaagtga cttcattcca gggctgaaat ctgttcttgt ggtccttgag gtggcaacac 1500  
agaaaggaca caggctttgg tgtccacaca cccatctgcc accaccagcc ctgaccttgg 1560  
gcaggttact tatcttggtt tcatgatcat ttttgcttgc acaaagcctc ctcccctgcc 1620  
ttgggaaggt cccatctagg gaggggggca gagggactct gttccctaga ctcccgatgg 1680  
tccccctgaa atgcagacag atcatgcacc agccctgctt taatctttgt gagactcctg 1740  
agctgtcttc aggatagtgt ccaggccccc tggagtggcc cacagctgtc actgctgtctc 1800  
taggatgtgc cgccttcctc ccaccccagc tctatgtctc ttgaatctc atgaccaccc 1860  
cacaggagga ttagattcc acttggtgga gaaaaggaga atggagctca gaaaagtga 1920  
atgcacaagg tctcttggtg aggagcccag gatgtgtcct gggagcctgg ctgaagggcc 1980  
aagaccccaa ccctgtgctg tgctgtcttc ccctggcact ctgcctcctg ggtgcctgca 2040  
tgcagtggcc ggtctctcaa cttcttgctc tgcccacttg tggctgccct gcccggaag 2100  
ccttctccat tcttcttct ctacctgggg gatgcctgct tggctctggc attaccttct 2160  
ccctgtgtgc ttctcaagac tgcateccac atggtatcac tggctgtct actgccctcc 2220  
cctcctagcc cagctgtgag catccagaga ggggcctggc acatgctgca tggctgagga 2280  
ccttggcacc agctgccctt tcagcttctc ccctgcccc tctcttgctc ctggccttgc 2340  
ctctatgcag gttctgtcct tccagcattc ctggagtggc ctcttacctt acgggaaggc 2400  
aggtgctgagt gaggcagggc tggctgcagg tgagctgggg gagaacaggg tatgtaagta 2460  
agatggtcct agacaccaga caaggaaccc tttgccattg ctcaaagtca gcattttctg 2520

catgaaaggt ttacctgtcc ttgtctgggt aatttacggg gccagaggt gggcaagtat 2580  
cttcacctta tccacttact gtaatttttt cttgtctatt tccaagagac ctcaaaagaa 2640  
gagcttctcc ataggtcttc tgtaactct gtgtccacca ggaacacaga agaaaatttt 2700  
tattgacaca ggcgaggcct aataatagca cagcttaata ggagtaaata ttctgctaata 2760  
tacttc 2766

<210> 1480

<211> 844

<212> DNA

<213> Homo sapiens

<400> 1480

ataaagcccg ctccgcatca tgacgtcaca gtgcgcgtag tcccgcccc tcgctttctc 60  
cctctgtcc tccgtccgt cccgtcggac ggggacattg caatgaggcg ggatcgcggc 120  
cctaagccgg ccctgggtgg agctggcgag gtggaaccag gtgggatggc agcctctccc 180  
acgggccgtc ccagacggct ccaacgtac ctccagagcg gcgaattcga ccagtttcgg 240  
gacttcccca tctttgagag caacttcgta caggtgactc ggttgggaga agttgccaac 300  
gaggtcacca tgggggtggc agcctccagt ccagccctgg agtccccga cctattgctt 360  
ctggccggcc ctgccaagga gaacggacac ctgcaactct tcgggctgtt ccccttgaag 420  
ttcgtccagc tctttgtcca cgacaaaagc cgggtgtcagc tcgaggtcaa gttgaacacc 480  
agccgcacct tctacttgca gctgcgggcc cactcaaga cccgagaccg agagttcggc 540  
cagtgggtgc ggctgtctta ccgcctgcgc ttcctctctg cttctgtgt gcccttcacg 600  
caggagtaag aggtgctgga ggatgtagat ggggagggtg atgatgatga ggtggaggcc 660  
cagagggagt gggaggagcc ccaaggcgtg gaagccagac ttgaccccaa gacctctgaa 720  
ctctggggac tctgagtctt ccagcatcct tcaaggtcac cgaatgacca gagatcaaag 780  
taccttgcc cagggccggg cagatgagat attaaagtta ataaaggtca gtccattaag 840  
aacc 844

&lt;210&gt; 1481

&lt;211&gt; 1800

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 1481

atcatcacac	acccccgcac	cccgaggagcg	gaggcgagga	ccagcctgcc	gagcctcgcc	60
gggccccacag	tcttccctcc	agcccgcgcc	tccgccaggc	tccgtgagga	aactcccccg	120
cgaccacccc	cggctcctgc	catcactcca	tccggaaccg	aaccgaacc	tccgcacccg	180
gccgcccag	ccccgcggcg	acccggccct	cccatggcac	cgccgaagcc	cccggttctc	240
ccacgctcct	catctcccac	cctggagaag	ccccgtctt	cctcccccg	cctcaactcc	300
gaccttctag	gcagccccaa	acttgacgag	gccggcgggg	cgaccggctc	cccgccccc	360
gcgcctcggg	cctccccgga	cccgcgcgtc	cccgtccct	ccccagcca	cgagctggat	420
ccgggggtgct	ggcgtgactc	accggcggcg	gccgcacctt	acagatgcca	gtctgctcgg	480
ctatgggccg	gatcttgtgg	atgaaagcga	aggggtccgc	gaactcttcc	cagctgggtt	540
cgaagaccgg	gactcgggt	ggaggcagga	actcgcccag	cggggccggg	ccccgaggg	600
gcagcgccgg	gcgcgggcct	gggtgcagt	tggtggccgc	ctccatcacc	gcaggctggg	660
caagggcgag	gcgaaggtgg	gctccgggac	cgaggctgcg	agctccgctc	ggtccgagac	720
ccgtgcagac	gcggctcgag	caacagcaag	tccgagttgt	acgggcaacg	gcagcacctt	780
gggctttttc	agcctccgac	gacgacgtct	cgccgcaagc	ccacgccgtg	cgcctccgcc	840
gccacggcga	ggaaaaagag	tcccaccca	ccccatcga	cccaccctcc	gcgcgcggct	900
ccccgccccg	ccccgaatc	gggcggggcc	gcgccttccg	ctgtggatgg	agttttatcct	960
tagggtttca	gttgagccaa	cttttattga	ccatttacta	tgtatcagag	ttcctgcct	1020
gaagaagtta	agtctggtag	aaaggatcag	tcccataagc	caatcattca	atcacgtcag	1080
tacacaatgg	taggtgcagt	aaaaccacag	agggggtttt	ggaaagagta	ttggaaacgg	1140
agaaggattt	tccagtagag	ataacagctt	gaacatacac	atagcatgtt	catgagaagg	1200
caatagtagt	aataataata	ataacgtaac	attttggggc	actttcatat	cctaggcact	1260
gttctaattg	catcgcatga	ttaatcacac	aaccctatga	gataggtact	cttattttcca	1320

ctttacaata aggaaagtga ggcataggta ggtaagcaa ttgccataa ttcacatggc 1380  
taataagtga tggagactat tgggaggtgg agatgttgca gggaaaataa tcatccacaa 1440  
acagtctatg acgaggtcag acttgagagg ggcaaaagac ttgaaataat ccagacaagg 1500  
aatgatagga tctaaattaa ggcagtgggtg ctgataatta tgaggaaggg atgcaaaggt 1560  
aggaaataaa attaggacat agtgacagat tgagggggga cgacgaggta ttaagattca 1620  
gatgtctggc gtacctgcct gagtagatgc tagcccgttg gcattgctgg aacattcacc 1680  
ccaattatat acagaaggcg agttactcaa gggaagaaga tactgtgttc atttctggac 1740  
attttgaatt tgaggtgtct ctggtacata caggtagaaa tacacaacgg ggtatccttc 1800

<210> 1482

<211> 2187

<212> DNA

<213> Homo sapiens

<400> 1482

gagaacctat tatgtgacag tccctgggct gagtgtcaca agcattatgt catttaattc 60  
ttttggattt ttgtttgaga caggatctct ctctgtcacc caggctggag tgcagcgggtg 120  
caatcaaggc tctctgcagc cacagcctcc taggttcaag tgatccttcc actttagcct 180  
cccaagtagc tgggaccaca ggcatgcacc accacgtcca gctttttttt tttttttttt 240  
tttctggtag agatggggtc ttctgtgtt gcccaggttg gtctggaact cctgggctcc 300  
caccttcacc tcctaaagtg ctgggattat aggcattgagc catcacacc agccttttgg 360  
ttttcttttg ggttttgtgt gtgcgtgtgt gtgtgtgtat gtgtgtttac tatgtcattg 420  
aattatttca gcaagcctat gggatggctt ccatgttcct atttaacaga tgaggaaatg 480  
gagactcagt cacttgccca ggtgcaccca gcactcaggt tgctttgttc acagctatat 540  
ccccaatgcc cagaataata ctacagatat aatggaggct ttgttaggaag aatgaatgaa 600  
tgaatggcag agctgggggt tgaacctaga tctgtttgac tctatactct taagaactca 660  
gctgcatgag ttgtgtttta ttaaaatatt tgggtgctttt tttttttttg ctacaaaatc 720  
tctactctgc acccaggctg gaggtgcagt cttggctcac tgcaacctcc gcctcccagg 780

ttcaagcaat tctcctgcct cagcctcccg agtagctggg attacaggca cgcaccacca 840  
 tgcctggcta attttcgtat ttttagtaga ggcagggttt caccatgttg gcgaagctag 900  
 tctagagctc ctaacctcaa gtgatccacc tgcctcagcc tcccaaagtg ctgggattac 960  
 aggccctgagc caccacacct ggccatttag tgttatTTTA acaaatacct aatattaatg 1020  
 gtggcttaag caagatgatg ttttattgct ttttcattta aaagtcaggg gcagttttcc 1080  
 agagctgata ggatggTTTT ataaacaagg ggccctgttt ctttcttttt gcaccaacat 1140  
 tttcaacgca taacctgcat ctcttgggcc gtagtggctg cttcagcttc caccatcaca 1200  
 tctgcgttgc agccagctgg aacagaagag gaaaggtaga gcctgtccca gccactaag 1260  
 ggcataacct ggaagttgcc cacatttctt ctgtcacat cctcattggc cagaacttgg 1320  
 tcatgtggtc agtcctcact gcaaaggaag ctgggaaacg tagtttttat gctgaaggct 1380  
 acattctagg gaacactgtg gctcttacca taagagaaag aaaaggaacc tgggtacagc 1440  
 aaggtagctc gcagtctctg atgtgtgttt gtgtgcagta cctgaggaat ttggctccga 1500  
 tgtggggact tgatgaggag ctttgtcatt gagggagtaa caaattgcca gtggggactg 1560  
 gggggccctta tctgagactt cagtgtgaca gccttctgcc cctcctgtcc cccaccagga 1620  
 tgccaaggat gggcgcttgt tcaatgagca gaacttcttc cagcgggccg ccaagcctct 1680  
 gcaaggtacc tgacagggaa ctgggcaagg aggggagagt gaggggggCG ccaacttggg 1740  
 cacagcactt gacttctacc tgcaggcatg agaagggtgg gcttagatta aaggcccagg 1800  
 tttgctccca tctgtgtcca taacctgact cctgtgacct ctcaggcctc agtgtgtgtt 1860  
 gtgactggct cacaccagct cttggaagcc aagtattaaa ttttcaggct gggcgtgggt 1920  
 tgacgcctat actcccagca ctttgggagg ctgaggtggg caggtcactt gaggccagga 1980  
 gtttgagacc atcctgggca atgtggcaaa acctatctc tactgaaaat acaaaaatta 2040  
 gccgggtgta atggcatgca cctgtgatcc cagctactca agaggctgag ctgagagaat 2100  
 tgcttgagcc cgggagacag agattgcagt gagctgtgat tgtgccactg cactccagcc 2160  
 tgagcaacag agccagaccc tgtctcc 2187

&lt;210&gt; 1483

&lt;211&gt; 1733

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 1483

tactggtaca	agccactgtg	ctcagcctca	cttttaaaat	atgcattttt	ttgtttctga	60
gattgttttt	ctctgttagt	tatctgcatt	tcttctttcc	gtgaattacc	tattcccatc	120
ctttgtgcat	ttttgtattt	ttttctcatt	gatttatcaa	ggcttttatg	atgctgcttc	180
ctaacattgt	atatatactg	cttcacaatt	tataaagcac	ttttcctatg	tgtaataaca	240
ctcgatccag	ttctgagttg	cattttgtgg	tctcagaata	gttagcctaa	cctgccttca	300
gtcttcctgc	tagtgagagg	agtctggact	cccacccaga	tttccagatc	ctaaaatgaa	360
tgttcctttt	gctacactgc	agtttgcaat	ttccatcttc	caaatccagg	agtattttgg	420
gaaggttttg	tttttctgac	gtctgttcca	caagagcaga	gctcatgaat	ggccatgatt	480
taattcccca	agtctctgct	ggagccttcc	cagctgtcat	gaggttgagt	atggctttat	540
catcatgaaa	caagtcatca	gagtctttga	atcttgcgta	ggaattggaa	gtcggggtat	600
accaggatag	gttttcagca	ccagggtgtg	cactcacctc	ccggtatgct	tggcagagtt	660
tgtgaagcgg	ctccggtact	gcgaatacct	aggggaagtat	ttctgtgact	gctgccactc	720
atatgcagag	tcgtgcatcc	ctgcccgaat	cctgatgatg	tgggacttca	agaagtacta	780
cgtcagcaat	ttctccaaac	agctgctcga	cagcatatgg	caccagccca	ttttcaattt	840
gctgagcatc	ggccaaagcc	tgtatgcgaa	agccaaggag	ctggacagag	tgaaggaaat	900
tcaggagcag	ctcttcata	tcaagaagct	gttgaagacc	tgtaggtttg	ctaacagtgc	960
attaaaggag	ttcgagcagg	tgccgggaca	cttgactgat	gagctccacc	tgttctccct	1020
tgaggacctg	gtcaggatca	agaaagggct	gctggcaccc	ttactcaagg	acattctgaa	1080
agcttccctt	gcacatgtgg	ctggctgtga	gctgtgtcaa	ggaaagggct	ttatttgtga	1140
attttgccag	aatacgactg	tcattcttcc	atttcagaca	gcaacatgta	gaagatgttc	1200
agcgtgcagg	gcttgctttc	acaacagtg	cttccagtcc	tccgagtgcc	cccgggtgtgc	1260
gaggatcaca	gcgaggagaa	aacttctgga	aagtgtggcc	tctgcagcaa	catgatgccc	1320
ctgagtactg	tgaaaaagac	tgttcaacat	gccttatgat	aacaccgatt	tgtgtctatt	1380
attggtgaca	ttgtttttaga	tattgggtat	tgtatattaa	ggaaaaagat	ggtctatatt	1440
ctcttttattg	catatactta	atgtttcaaa	agaatgcaga	ttctgtgttt	aagcacaggg	1500
ctgatatgtg	tggttttgtt	tacaaatgtt	ctgttttggc	tgctattggg	tttttaaaga	1560

ggttttttat acttttgtat ttgaatagtt atgtttcact gatgctgagc cagtttgtat 1620  
gtgtgtgcat atatgtgaac tgtaactgac aagatgaatt actcagtttc tctttctcta 1680  
aagcttgttt gatgaaactg gttggtcctt tcagtgaaca aaaatatgac ccc 1733

<210> 1484

<211> 2008

<212> DNA

<213> Homo sapiens

<400> 1484

aaaaacatag aatgtgccta ccctccaccc agtgcttgaa catcccttcc ccctcatcac 60  
tccggggaag gatcctgctc aacacccaac tactcattca aacctggaac ccgaaacttt 120  
aatgaagggt gctctactga gatttttctc cccaccgaac atgtctgtga cccacaaaga 180  
agcccatgaa agaaagtgcc cagagaaacc agagctgtgg aaggctggct cgacgggtgcc 240  
cctcactgcc cctgagaaaa cagaccattt tcctctctgc ccacctttt ccctgacatg 300  
tccccagcag cagtctgtga ttcccagttc ctctcaagat gttctgaata gtctctgggt 360  
atcctctcat tgccttcaac tcaagatata taaaacaaaa actcattgtc ttcccactca 420  
aaacgtcctc ccctttctgc tgccaacccc agtcagtatt gtctgcaggc ttccaggctt 480  
ggatccttga ctcacggcca cccaagcttc cttccccctg gtgcgattag tcagtaagtc 540  
ttagtagtga tgagggttct ctgcaccgtg actgtccggc atgctttttc ctctcccatt 600  
tcctcagcca ccagcaattc caggccccctc ttacttctgt atgtattcta gcgagatcaa 660  
ctggcaagac aaagctcaga cgtcacctcc agaaggtttt catggcttgt gataatctgg 720  
cttcacctgt attctacttc atgagacaac tgactatctc gtggcctctt ccctgtggcc 780  
tccatctctc tttgcagctc cagtccttgg cacatgcttg gcacacagct cactgcagct 840  
gctcaatgag ttttgtggac tggatgtttg cttgtgggaa gtggaagcag ggaccagatg 900  
gatgggcaga aggattgtcc tattcaaata tgcactgggt gtccctgtctt gtgtttgggc 960  
accagttgaa tccaagagct ctcaacctgt ggagtgtcgg atgaaatcta tggaatccct 1020  
cctcagaaaa gcaaatgaac ccacacaatg atggcgcagt ttcattgtca tcagcctcct 1080

gaggcgtatc cacaatcacc aggatatggg aacaaaggaa ttgtgtttta atgtaaaaaa 1140  
 gaagttctag aatttcaca gaatttacat tcttcttggt gtaaggaata tgcctggtaa 1200  
 tggaactcaa atatcagctt ggatcgccct ggcctttgaa atttgaggta aaattaggct 1260  
 taagccgtat ccagcgcaca acagaaacct cagtgtctcc caccagggga ctgtctcgga 1320  
 ggctgtgtgt tcagatgtca ctctgcctc ccggcatctg ctctgagtt ttcactcttc 1380  
 agcctcccct cccaaggcct ccttctacc ctggcgctgg gcttcttgcc ccgtcccct 1440  
 agaatccgtg gcacaggggc tttatctgtg tggagtctct acagacggtt agaaacacag 1500  
 agtcagctag aaattaagca gtaggcagct gtgatgtttt ttgacagcct catttctaaa 1560  
 accccttcag caacccagct caaggagctt ctccctctag actccagcct cctgctgagt 1620  
 cacctgcacc gtctctgcct tcttcccctt cctcacatcc tccctggccc catcttccaa 1680  
 ttcctctgaa ctctgcaga gcagccagct ctctctccag ctcaacttc cccaccccaa 1740  
 gcaggtgggg catcctgacc ctgagcaaaa gcagttctct ccctaagaaa caccggtgac 1800  
 ttttgttcat ggcactccat ggatgcaaag ctctgagttc tgttgaacag ggactcacct 1860  
 acgagtgggtg gtgctatcag ctgagacggg aagcagcact cagtagaaga agaaaaggcc 1920  
 tggactgggtg tgggcatgca ctggctcgtg agaagcaggg aaggctgctc ttatgggtcc 1980  
 cgtttctaag tgacgttcac ggcctggc 2008

<210> 1485

<211> 2414

<212> DNA

<213> Homo sapiens

<400> 1485

ggtggatgcc ggttattgcc gctgtggggc acgtggttct ctggtggatg ccggttattg 60  
 ccaactgtggg gtgtgtgggt ctctgggtga tgctggttat tgccgctgtg gggcgctgg 120  
 ttctctgggt gatgccggtt attgccgctg tggggtgtgt ggttctctgg tggatgctgg 180  
 ttattgccac tgtggggcgc gtggttctct ggtggatgcc ggttattgcc gctgtggggc 240  
 acgtggttct ctggtgggtg ctgattcaat tccggacca cgtggctcta ggctgtctgg 300

ggccacagca tacaggaaag ttgataatca caggtgtggc atgttcctc tccactgccc 360  
acccccagct gtgagccac ccctgcccct ctggagacgc caagccagaa tgcaggagtg 420  
ctgctgtgag agtagcttca aaaccgtcaa aacttctatc aaaagcagtt attccaaacc 480  
ttctgtgtca tattgttggg aatgcattcc tttttgaaag tctgcacttg gtcacgggtg 540  
ggctggcacc tgctatcgat ggatgtttct tcatcctctg agtcccagt ggggcttcag 600  
agcagggggc agagcagccc cacaccgct ccctctgcag atcgctgctg ctcagctttt 660  
catggccaga aaagctcttt tctaattggga gtattgactt ggagaatttt caaagttttg 720  
caagaatcca ctgcagcctg gatgggttga tatttatgat gtgtttggtg ttgtttgatt 780  
ttgtttatct gtttttaatc ctttctgtaa tcagagcaaa cgtagggatg tgagaggcaa 840  
gatgaaagtg aaaacagtaa aaatacagcc agagtttgtc tccacctcct cacaacctat 900  
tacatgaatg aaacgaaggc tctgagtgc tctccccta aaagtgcagt tggcaggaat 960  
gggacccaaa acaaaatggc ttctccttag tcccgtagac ttcgggtcaa tgcaagggtg 1020  
aggatgcact tagccatgtg tgaatcgtgg tcaccatgtt gccagctctg aaaactgcag 1080  
atttgacca ccctttccat ggggcagggt taacctgaga agaggctatg ctgggctgtg 1140  
gggtccatgc tcagctacag gcgtggcagg aagacatctc ggctcagcac agggcgtggc 1200  
cgagcaacc ggctagtgtg ggggccaggg aggagaaacc caacagacag gaaacactgt 1260  
ctgaaacttg gaaagataca tcctatccaa ccaaaatgag gaaagcctct caagagaagc 1320  
gatgctttga atccagagta tgagaccag ccgaggctgc tgggtgttga atgtggagaa 1380  
gagttgggaa gatcagccct caaggtccgg agctgctggg aatgagacaa atgttgggg 1440  
gacctaaggc tggggctgtg agctggccca cgtaggagcc accatttcca ttcattgttt 1500  
agattcattt atgaaacaga cagaaattgc ctaattgaga actagctggt ccatgtttga 1560  
ggccaaccta aatagagaat tcttgccatt ttaaaaccct gcgtcaatct aaacaacacc 1620  
tcattgact aggtggcctg gttttcttgt ttcagcattt tgcctctaca ggattgtttt 1680  
tgaggaaata gttaaaactg agaattttat atgataggga tctgaagaag agaaattgga 1740  
aatggggaaa aatggtttca aaaatgaagt ttatctgcaa tgtagttatt atggaccaga 1800  
ctcagtgaac tgggaacagt cactgaaac tgtgcggccc aagacagttg agcttttgg 1860  
tgagtgaatt taagcatttg ggctgaagct ctgaagctat gttcggttaa acatttatca 1920  
gtctgccagc atgaataaaa ggagaaatgc ctgccacatt ccttaagaca ctccctat 1980  
ttaacgaact gtctgtagag tttgggcaat gtagttcttc ctcaaagttc cttccacatg 2040

gactagcttc agtgaatgtt tctcatgtaa aatagatgct tttattttca gccatgatga 2100  
 ttttctccaa tgattctacc ccattttgca aagcaccatg acagtattaa atgatgccat 2160  
 gagaagcacg tgtcagtcac aggtgacaac acaacttcag cagagcatcc agcgtgtata 2220  
 gtgtgcacga ggtgaagaag gctgggctgg gccaaagacct gggaagcaaa tcctatgact 2280  
 tctcctcttt gtgaattaat ggcaccccct tttatagtct gaccaaatat cttaaagatt 2340  
 ttatgaccca attccttttc tcctgggtatt tgaaatggga attaaatgca ataaaatcaa 2400  
 tatagtaaaa tcgt 2414

<210> 1486

<211> 1824

<212> DNA

<213> Homo sapiens

<400> 1486

aatgtgtcct caggcctgtc cccgcaggtg ggctccctcc aggagcacca gctctgcctg 60  
 agtcacctt cattctgcag gattcagaag caaccggacg gggtgcagga gactgaggaa 120  
 ttgggagaga gacagacaga tgctggggat gtgcccttgg cccaagggtc aggcctggct 180  
 cctccctgca tggccagaac ttttcacatg gcttaggcag ggcccttctg ccctccaaac 240  
 atcagtttcc ccatatgcca agacatctcc ctgagctggt agatgagatg ggttaagaca 300  
 gcatgaggaa cagggcagca gaaagacggg ggtgggtcca aggggcccc gagctgcagt 360  
 gccctgacct tgtccagctc ctcttggttg ccaaagagcg ggtggtagcg gcggtacttg 420  
 ccctcacggt acttggcctc caggtggcac cgccgggtgc tggggctgct gctgggctgc 480  
 agggcctcac tggggggcac gttggctgcc cagaagcggg tcccagcgcc attccccagc 540  
 tgtaagaaga gctgtggggg tgtgcaggag gtcagacggg ccagctgaca gccaggggcc 600  
 gtgccgggca gaaacttggg ttctgaggtt gttaggaaag gggctgggag agccaggcca 660  
 tctgccact ttccaatgg ggaaggtgag gacagcctgt cctgctggtg gctggggatg 720  
 ctctgccac cagcactggg ctctgagcct aggtctcagg ctgagtgaca ggacagggag 780  
 tcagcagact gacaggtgga tgcctcaggc cttgcacctg gtcccagggg ctttgctgct 840

gccccacca gttccacatc tggagctctg cattcctgag gctgtgacag ctggggatgg 900  
 gtgcctaacc tgtcagccaa tgggggtgggc agggattttg gaaacctctc ctatccctga 960  
 cattcctctc tgggcaagag ggatgggggt ggattctggg tgagtgcagg gatccagcat 1020  
 ttggtaatca gttccttcat tcggctcctc attccacagc catttcctag gccccccacc 1080  
 ttgcctcctt gtcaggctcct gtatgggggtg ctggagtcac agcacagaac aaagcagaac 1140  
 agtccttgcc actactgatt cactctgtgt cttccagcaa gttattttct ctccctgggc 1200  
 ttcaaggctg taaactgggt attctaatec taactcctgg ctgtttctga aagtcagtta 1260  
 attaacatat gcaaagtcct tagcattat gtgccaaaca caccgtgggg aggtgagaaa 1320  
 cggatgtgac actccaagt tctggagtct gcagcctggg tctaccctcc cattgcaggt 1380  
 tctcccctat atctaccaca tatgggtacc tgggagtttc cagtacaggg gcataaatgt 1440  
 acacgtgtgt gcacacacag cacacatata tatacccact ggtacatgtg agttcagatg 1500  
 aaatggaggc tgagggcctc tgaggggctg tgcaaggtag gggagaaggc cctgggtcag 1560  
 ccagaagtgg gatggaaaga ggcagggatg gtggtcaata tgcatttaca gggtaatctc 1620  
 aggagatta cagccctgcc caggacctca gtttacacat ctattcaatg gatgacagtg 1680  
 aaattagatc agaagttagc aaattctttc tctaaagggc gaaatagtaa ttattttcgg 1740  
 ctttacagaa cacatacagt ctctgctgca ttttcttcct tttttttct ttaaaaaaaaa 1800  
 ataacacttt acaactataa aaac 1824

<210> 1487

<211> 1742

<212> DNA

<213> Homo sapiens

<400> 1487

agtagacatc gcgcaggcgt cgtcagtaga catcgcgag gcgtcgtag tagacatcgc 60  
 gcaggcgtcg tcagtagaca tcgcgcaggc gtcgtcagta gacatcgcg aggcgtcgtc 120  
 agtagacatc gcgcaggcgt cgtcagtaga catcgcgag gcgtcgtag tagacatcgc 180  
 gcaggcgtcg ggtgaggcgg ctttggccgc catgttttcg tcgcagtaac tgccttggtg 240

tcagtagtca ttgccagttt cgggcgttct ggacaattgg gatgctgcag agttcatggc 300  
 tggggctgct cgttgggtgg gacaagaatc ctctgcaatg gtttgttttg gctgcccagg 360  
 aggtgcgtca agtcgctgcc gctccccctcg tgggcgtcag gcctcaagag ttccccgcct 420  
 agaaaaatgga gctcagcgag tcgtgcgtac catgggtgcac ctggttttgc agcctaagcg 480  
 agtcacttta gtgcatcctc ctgcggttatt ggagcctgtt tgcacccta tagcccgaat 540  
 gagaccaag tcacacgggc tcagaagttc tttgccccctg gccatgatcc cccagccagc 600  
 cccccgagtt tccaggcctc aggcgctttg gaaacgcctg tacgtcgctt gtacctgaat 660  
 ggcaggtact catctgcttt agctacatca tagtctgcac cacttctgcc agctcgattg 720  
 cagcctggat ttgagtcaga aacttttcat ggtggatgag ggttgtaaata atccaaagcg 780  
 actccagatg aaattgccct catcaaagga agctcagatg acagatttct gcatagaagc 840  
 caaaaaagcc ttccctcaag gaaagagtca gtttcaagta tttgcaaact cagaacagtg 900  
 tcaatttttag atcactacaa tgctgccccca tcaaggaaga accctattgc tccctggcgt 960  
 ctctccttga gccctaaaca cagtagattc agaaactaag tcagcaaatg gaggaagatt 1020  
 cttaccgtg ataagttgga aaacgtgcgt cagagggcca catcccttcc tcgagttcag 1080  
 gctaccacct gactgccacc cctgagacag caagaccaat gcttcttctt cctcatcacc 1140  
 ctcatcagt tgaagacaag gatgaagacc tttatgatga tccacttcca ctgaacacat 1200  
 actcctgctt atgtgtcagt ctgtctcctc ctcttggtgc caagggaagt categtccc 1260  
 gctggctcag aacctggct gtgccagccg gcaccaggt gtggagacaa gatctacaac 1320  
 cccttgagc agtgctgtta caatgacgcc atcgtgtccc tgagcgagac ccgccaatgt 1380  
 ggtccccct gcaccttctg gccctgcttt gagctctgct gtcttgattc ctttggcctc 1440  
 acaaacgatt ttgttgtgaa gctgaagggt cagggtgtga attcccagt ccaactcatc 1500  
 cccatctcca gtaaagtga aagcagaaga cgttttccct gagaagacat agaaagaaaa 1560  
 tcaactttca ctaaggcatc tcagaaacat aggctagggt aatatgtgta ccagtagaga 1620  
 agcctgagga atttacaaaa tgatgcagct ccaagccatt gtatggcca tgtgggagac 1680  
 tgatgggaca tggagaatga cagtagatta tcaggaaata aataaagtgg tttttccaat 1740  
 gt 1742

&lt;210&gt; 1488

&lt;211&gt; 1988

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 1488

```
aatttggaca ggggaagggg gagggaagtt gccattcaga gcctgcagtg cctgcatttt 60
ccccgaattg ttttaaccctc atgcttcaga attaggctga ggcttgcggg gtgggtcatg 120
ttgacctggg tgaacagaga tccctttaag aagaacttct ccatgttcca gaggcgcgtt 180
cttactgcag gtgagtggca gtatgggaat tagtccacag gccccttctc gaatgcctgc 240
cctctcttgt tccttgtcct caacgtcttt gaaacttggg cttgttggga agacacctgc 300
aaaaggatgg atgcacatga ccttcagctc taatgaatca agctgctgat gaggaattca 360
ctgggctccc aatccagaga gcttcgcaca caccactgg ggttgagacg agcactgggt 420
ttatttattg tggacttttg gagtctgaag gactcttgcc acccatctgt ttcacggaac 480
agaacctgag gctcagaggg agcaaggcgc tccccacag ccgcattgag agcctgagcc 540
tgggcacccg atggagtga ttaggctgga gtcccagacc tgcctctcat gagcacgtcg 600
cccactgagc ctcagcgtca tcatctggaa aacagggata atattatgac ctgagaagct 660
tcgggggagg aagtaagtga aataatgcat ttcagatgct cagcgccttt taagtgttg 720
atgtcattc cccaagatta catgagagac atggaaaatc tttaatgacc aaggacccac 780
ccagggtcac tcagccggga cccttggtcc gtggcccaga gtgtctccag tgcccctgca 840
ttgaggccct aaacaaggcc agaagcaggt gccggggacc cctctggatt ccaccagagc 900
accttccatg gatcatggct cccaaaacgg aagggaagga gacagcgcag tttgcaaaga 960
ggcaggattt aagcaccagg gtggccctgt ggcgccctcag gaaaatgttt gcctgtcagt 1020
atctgtctc gttccacct gtccccacaa agcgaggcca taagtcctcg gcgtggcatt 1080
ggagggtctc tgaaggccct gagagctgtg tcagccacgg tgtgttatga agcaaggcag 1140
atgttttgtt aattatttac acagcgtcgg cccctcagag gactgcgctg acaggagcgg 1200
ctgtcacagg cctggccgtg gggcagaagt gagcagccgt cttcccctgg cagtctctct 1260
gaaaaggtct gcatggcaag gcctgaggga gtcctgcaca ttttatgccc ccgcccccca 1320
aagccatttg ggtttccctt aaactggctt gttttcctga gccggtggag agatccttgt 1380
cctccggaag tggctatcgc tctggggcgg cttctctgcc agctcgtcac accctagacc 1440
```

cagctgtagt ctgtgtggtg ggagaggggtg tcaccaggct ctggagggtcc actcctctgt 1500  
 agtcacctca tgcaaggagg gcttcacagg ggcccagcct ctactccctc atccggaaaa 1560  
 cgggccagta acaccaggca ccagccccgt gatcctcagg cacccttggg ggtgatctgc 1620  
 cttagaaaatt caactttagg attagaattc tgctaagagg taccatgtga caaaaaaggt 1680  
 agtgtaaaaa tcacaaagac caggacaggc tcatgcctat aatcccagca ctttgagagg 1740  
 ccgaggcggg cagatcactt gaggtcagga gtttgagacc agcccagcca acatggcaaa 1800  
 accccatcgc tactaaaaat acgaaaaatt agctgggcgt ggtggtggac acctttaatc 1860  
 ccagctactc gggagcctga ggagcctgag gcgtgagaat cacttgaacc tgggagacag 1920  
 aggctgcagt gagctgagat tgtgccactg cactccagcc taggcaacag agcgagactc 1980  
 tgtatcat 1988

<210> 1489

<211> 1952

<212> DNA

<213> Homo sapiens

<400> 1489

acttcgcata tgttatttct aatcttcaca aaaatcttac caggcaggcc tcatattccc 60  
 attttcagat gagaaaacca aggcccagaa aggttaagta tcttgctcaa ggccacacag 120  
 ccagcaagga aggggcaggg ctggattcaa atgcaagtct gcctctgtgc tccgtgtgtg 180  
 gacagccagc ccccttcac atctgctgcc tgccctgggtt cctacctgaa gcgcccacgc 240  
 ctctcagagg tgtgcaggcc gatccaccag tgctgctcct gggcccggga gaactggaga 300  
 agccaggcgg gcaggtgtgg gtaggcagcc ccctgccctc atcccgggcc tgccctcccc 360  
 cagcctgcag cccctgctc aatccaatgc ccaccttctg caagttgtgg ctcaggaagt 420  
 ctagctccgc ctggctgtgc acggagggtca gctcggcctg gaaccacgtg cagatgcgct 480  
 gcgcctgcgc ccacgtggag tggtgctcaa agaacttgta ctcggcctcc tggaagcgca 540  
 gccattcccg tcggcctgca ggagcagcgc gggcgtggga gcggcggcca ggcagaggct 600  
 gcacgccagg ccccgaggc gggcgcgga gggccggggc agagccaggc ggcagcaggc 660

gagcctgcag gcacaccgga cccaggcagg caccgtgccg ggccccaggc cccaggcttg 720  
cctcgcctcc cagacggaag caaacagggc tgtggctgcc tccgtccgag ccaaccccg 780  
ccctcttctc tcgaccgga ctcctcatcc cctccatttc attcaggcct ctcgggactt 840  
acccagagt tgacgccctc tcccacgcga tgggtagcgg gatgggctgg ggggtgctca 900  
ccttgagggc tgcgtcggg ctcgccacg tccgtaccta ggggaacaag gacaaagacg 960  
ttgtgaggaa aggagacct ccttgaatt cctggccccg ccacccttcg ctccatcccg 1020  
cgtccccag cgccactccg gccaacctct ggggatcttg cagatccagt ccagctgtgt 1080  
gtcgcactgc atggccacc actgcaggga ggccaggctc agcaccgcac agcctcggat 1140  
gtcgtcgtcg tcgtgccggc tccggtcgaa attgtggtaa gagaactgga ggaggcgggt 1200  
ggagggaaga ggaacgtgag gcgcaagggt caggccgcc ccatgcccgg aacaggtgaa 1260  
caagaggcct ggcctgagct gcgaattctc accgggggcc gggtagcccc tctcggacct 1320  
gctttcctga agccggctcc gactgggggc ccggccctca agaaaaccg cccacctcca 1380  
ggccccgcc caaacaggcc ccgccacca agtccccggc ctgcagtc caagtacccc 1440  
aggccccctc accctacgc cgtcgtcca gcgccaactc tgaccctc tgggatcccg 1500  
acggttcagg ccgatccaga accagtgtg ctcgtggatc tcgggttctg attcacttca 1560  
gcacaacca ggagtgggga cggaagagat ggggaagtgag aggggcagga acccaaactg 1620  
gccccctgtc ccttgagct gtgaccgggg cagccccag ggcctggggc ctctccatct 1680  
gggcttcaca ttgaccatc gatacagcgt tgaggctact tcggtaaagt tctccccaca 1740  
agacagagct ggggagagct ggaccaagcc atccactcaa ggggcagtgg cccctccct 1800  
ttgtttgggt tccttttggg tgggggtgcc ctgtccagca agattctgca ggcttttact 1860  
ttacggagtt taggaagttc agatgaggag gtggcaggga tctacggctc tggagttaaa 1920  
taaacctgga ttcaagtatc cgttcacca tg 1952

&lt;210&gt; 1490

&lt;211&gt; 2110

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 1490

tcagtatctc	catagctctt	tactgctatg	gttggcccca	gtcatttagg	gaactcatca	60
ctcatgcaga	gcgtcactca	gcagtgggtg	ttaggagcat	cagcttgcat	cggggcaggc	120
ttggttccaa	agcccaggcc	tcctccatgt	ggttccacaa	caggaaaagg	gaacaatcag	180
acctcttcca	gtgtgggtcat	gaggatacaa	gaagatcatg	tcaatattgg	cattcataat	240
ggccagacac	tgtggcgcat	gcctgtaatc	ccagcaatit	gggaggctga	ggtgggcaga	300
tggcgtgagc	cccagaatit	gaaaccagcc	tgggcaacat	ggcaaaacca	gtctcttctg	360
aaaatacaaa	aaattggcta	ggcttagtgg	tgcacatctg	tagtctcagc	tacttgggag	420
gctgagggtg	gaggattgct	taaaccaggg	gaggctgagg	cttcagttag	ctatgatgac	480
accactgtac	tccagcctgg	gtgacagagc	gataccctat	ctcaaaacaa	aaacaaaggc	540
aaaacaacat	tcaaaatagt	agcaatagct	actatgtgcc	aagcccagac	acctctttga	600
gtccttgctg	tcaccctatc	aggtaagtgt	gcttcgaagt	tacacgaagc	agatggctta	660
gtatctggcc	catggtaagg	gcctaaaaag	tggtagcccc	agtgggtggg	atgctgctgc	720
tgctgctgac	cattaacccc	catctgctcc	accttcttcc	aggcagcctg	tgaaacgttt	780
gatgtccgaa	gccaacagca	cattcagatc	cccaagctct	acacctcaa	tgtgacctgg	840
ggcttgcacc	acttcaggct	cgtgcaggac	tcacagcctt	tggacctcag	ctaagggacc	900
tgcttctctg	tagcacatgg	ggcttgtttg	tgttggggtc	tgagccctga	gctcatggtc	960
aaggagaacc	ccaggtcctt	ctgaacagag	acagctggcc	tcggggcctc	cctctcactg	1020
catgcaagag	cctgttaggg	cacaagactc	aaggcgctga	gggaggctgt	ttcaggaggg	1080
agccgcagaa	ggatggtgga	gagagaaggg	gacagcatcc	gccgaggggc	tactgtgtgc	1140
caggcactgt	ccagggtctc	tggcccatat	gggctaagtg	aatctggaca	ctcctcctgg	1200
gagaaaggca	cagatggaga	aattgcagtt	cagggagggt	aagcaagctg	ctagcctgtg	1260
gccactttgg	gatctgagcg	ccagccttct	agccacaaag	gcagcaaagg	gtcatgaaga	1320
aggcatcaca	gaggcgattc	caggctgtag	tggatgaact	tccactctgc	acccccaggt	1380
gctgtgccct	gtgccctgat	tagatagtcc	tgaaggtttc	tacatgttta	agatatcccc	1440
aatgtcaacg	atgctctcct	gtggatccca	agctgtggag	atgtcctggg	actttccatt	1500
ttaggttctt	aaattgaatt	tccaacacc	tagaagcaac	ccagctgccc	tgtatcagac	1560
caaggacctt	tatttgtgat	tcagaaacag	tggaaataaaa	ggaaaggaaa	gaaaacccca	1620
acagccacct	caggaggatg	ccccaagggt	agtgtctctg	tgtcactgac	tcagacatgt	1680

gggggcttct gccacccacg ctcaagagcc actttgccgt ttcaccgtct ctgtgtcctc 1740  
cacagccctc agcagcatgc acgccaataa catgttcacc acgaggctca aatctcagca 1800  
gaagctacag agtccaacat ccaggtaagg gaaagtgcag ggcttctcgg gtgatgtctt 1860  
actgatttta ttttaatgaa tgaaagacca gaagaagtca gtctttgaag ggagaggaga 1920  
ggagcatctg ctggcattag cagccatgcc atcggtagga ctggctcacc tggtaacctg 1980  
tggccacctg tgcttttaca tctactcttg gttaaccacg ggccactttt ccagcttgga 2040  
ctctaagcgt ctgttcact tctctcctt cctcattgaa ctctttcact aaaaggagag 2100  
tgcaagagag 2110

<210> 1491

<211> 1586

<212> DNA

<213> Homo sapiens

<400> 1491

agtagcagtc cggtcctagg gactagcagg caccaagaaa ctgataatgt tcctttgaat 60  
tggtctctgt atttgcttca tcaatgtctc tcatactgaa tatcttaaga gagatgctgg 120  
aatattttgg cgttcctgta gaacagttag aagtaacttc agcatatttg tcatcactct 180  
ggaagaaaca gacaggaaga aatttaagat ccacatgaga gaggattgag caccgccttt 240  
gagaaggttt tgctgatttg ggaaaataaa gactatggat caactaggag tattgttcgt 300  
attattggga aaatgcttcc actggaacct tgtcgaagac ctaattttga gttgatcccg 360  
ctcttgaact ctgtagactc tgataattgt ggatctatgg ttccatcttt tgctgatatt 420  
ttgtatgtgg caaatgatga agaagccagt tatctcagat ttcgaaatag tatatggaaa 480  
aatgaagaag agaaagtgga aatttttcat cctttgcgac tagttcggga tccactgtca 540  
cctgctgtaa gacagaaaga aactgtgaaa aatgacctgc ctgtaaatga agctgcaatt 600  
agaaaaatag ctgcccttga aaatgagctg acttttcttc gctctcagat tgcagcaatt 660  
gtggaaatgc aggaactgaa aaatagtaca aattctagtt cctttggctt gagtgacgag 720  
cgcattagtt tgggtcagct gtcacatcgc cgggctgccc atctgagtgt ggaccagat 780

cagcttccag gttcagtgtt tctctctctt cctcctccac cacttctctc tcagttttca 840  
 tctctccagc caccgtgttt tcttcccgtt caaccaggat ctaataatat ttgtgactca 900  
 gataatccag caactgaaat gagcaaacag aacccggctg ctaataagac caattatagt 960  
 catcattcaa aaagccagag aaataaagat attccaaaca tgttggacgt tctaaaggat 1020  
 atgaataagg ttaagcttcg tgcaattgag cggtcacctg gcggtagacc cattcataag 1080  
 aggaaaagac agaattcaca ttgggatcca gtttctttta tatctcatgc acttaaagac 1140  
 aaatttgcatt ttcaagaaga tgattctttt gagaaagaga atagatcttg ggaatcttcc 1200  
 ccatttttcta gtccagaaac ttcaaggttt ggacatcaca ttccacagtc agaaggacag 1260  
 cgaactaaag aagaaatggg caacacaaaa gctgttgacc aaggtatcag caacacaagc 1320  
 cttctaaact caaggattta aactcaactt aagggtgagc tttaaacttc caaaacttct 1380  
 tcctggatga taaattattc ttagaaactg atttggactg ttaaaggcta aaagtagatg 1440  
 tatttaaaga ctcttcttga cacattttgc ctacacttgc tatgtaaata tgtatgcctg 1500  
 tcatttttgt ttctttgtt cctttttacg ttataactct gttcttctgt acatagagct 1560  
 taaaataaac attctttttg aacttg 1586

<210> 1492

<211> 1965

<212> DNA

<213> Homo sapiens

<400> 1492

tccactgcca gtgccccagg tcagccctcc ccgactctgg cctcaactgt cggaacaggc 60  
 tcttccctgg tctccctgcc tccaggtgc ctgtccaggc cagcctccac atggtcactt 120  
 ggtgatcttc agaaacatag ccttcatgtg tactcagaat tggcaggtga accctcacac 180  
 acacaccaat gcacacactt accttcccag ccctctcttc ctcccacggc tctcagcac 240  
 aggccgtgcc ctctagctgg gctactcact gcacgcagca gcaccgtgtg cttgctcttg 300  
 tctctgggct tcccgggccc tacctctgc acaaagccct cccttgggtt ttctgcctt 360  
 cctcgtgctc tctgtctccc tcagccccgc agtgccctgca gtaggttcgc agtgctcatc 420

tggcctccct cccacatcct gctttgtctt gtcagccgct gctttttttt tcttttcctc 480  
cattccaggc tgggctgtag ctgctcccat aaagggatca cagtttgtgt tccacgcaga 540  
aggagcacag aacacttcca ggcatatcct tggagctcaa gacaggttgc tcagctaggc 600  
cagagaagag agggatctgt tcatttccag ccctgcaggc ctgttggctg ttttgtgcat 660  
ttatgtagct ttaagtgc gactaatagc tatcatttat tgcatgcca ctatgtgcca 720  
ggcactgtgc caggcattct atgtgagctt tcttatttac tcctcccaac aatcctatac 780  
attaggtatc attattgtcc tcattttacc tgagaatgga agtgaggcac agagatgaac 840  
cacagagttt gttctgggtc catggtcctg ttgtttctat gttctgtctg ctctactaca 900  
ctgcctttca gaggcaggtc tggaagtcca gagaccaagt tcaaaccctg gagtgttggg 960  
gtatgaagtg gcttgagatt ttgaatcttt cctaccccat ccctctcttt gctcagcatc 1020  
ttcaaagcca tggggcaggg cctgccagac gaggagcagg agaagctgct gcgcatctgt 1080  
tccatttata cccagagtgg agaaaacagc ctggtgcagg agggctctga ggcctcccc 1140  
attgggaagt caccatatac actagacagc ctgtattgga gcgtcaagcc agccagctcc 1200  
agcttcgggt ctgaagcaaa ggcccagcaa caggaggagc agggcagtgt taatgatgtc 1260  
aaggaagagg agaaggagga gaaagaggtc ttgccagacc aggtagagga ggaggaagaa 1320  
aatgatgacc aagaggagga agaggaggat gaagatgatg aagatgatga agaggaagac 1380  
agaatggagg tggggccttt ctctacaggg caagagtcct cactgcccga gaatgctagg 1440  
cttctggccc agaaaagagg agctttgcag ggctctgcat ggcaggttag ctcagaagac 1500  
gtgcgatggg acacatttcc cctaggccga atgccaggtc agaccgagga cccagcagag 1560  
ctcatgctgg agaattatga caccatgtat cttttggacc agcctgtgct agagcagcgg 1620  
ctggaaccct caacatgcaa gactgacacc ttgggcctga gctgtggtgt cggcagtggc 1680  
aactgcagca acagcagcag cagcaacttc gagggccttc tctggagcca ggggcagctg 1740  
catgggctca aaactggcct gcagctcttc tgatggccat ccctggtgca agtgttcac 1800  
cagccgtgcc agggcaacag cccacccct agtacaactg atgctccctg agacaacctg 1860  
ggagacagcc tggatcagcc acatcaactc agttgtccac cacaggggaa ttttgaatgt 1920  
cttttgttt tgttttgtt tgaaaaataa taaacaggca actgt 1965

&lt;211&gt; 2397

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 1493

aataagcatg aatacgacct ggctacctga aggaggtagg acggggaacc gagcagcagc 60  
agggtggtgga atgccaggga aatccaaccg tgcttccac gctggcatcg ctctgattat 120  
gaccaatcct ctaatcttat tctcacaatt agggaggaag aaaaaaaaaac aaacccaaac 180  
caaaaaagaa gttggtaggt gactctgtga gactactgtt ttataaaggg agcgtttcct 240  
tttataaaat ttagctgagc agatgctagg cagcccacag gaggccacta ttcccctcag 300  
ctgtacagtt tgggaaaata cctacacacc cggagaacag agagcttggt gtgtgttgag 360  
ttcgctcctg ttcacagca gccctttccc cgtctctggc caccaggggg acctgcaacc 420  
aagtatgtgt tctttcaggc gagcgggaac gcgtctgcat aaatctagtc caatccaggg 480  
ccccgtagca aggcgccaaa gctgggggca gcgcatttct gttctctcgc gagcacgacg 540  
cgggtgcctcc cagtcctcct ccggccctcc ctctccgcc tcccggcccg cgagcgctcg 600  
ggccccctcc agtggctcgc ggcaggtggc gctgtctgcg gcgtcgcagc ggcccgggct 660  
gcagcagaga cgatctcccg gcgggctgtg cggcccggct ctccggcggc agcgagtgcc 720  
acgtcccaag tgctacgcgg aggattagag caggcgggtgc gctggggggc ggagcagcgc 780  
ggagcccggc tcggccacac cgatcgcccg ccgccatggg ctccctcgaa agcgctcgaga 840  
tcccgggcgg gggcaccgag ggctaccacg ttctgcgggt acaagaaaat tcccaggac 900  
acagagctgg tttggagcct ttctttgatt ttattgtttc tattaatggt tcaagattaa 960  
ataaagacaa tgacactctt aaggatctgc tgaaagcaaa cgttgaaaag cctgtaaaga 1020  
tgcttatcta tagcagcaaa acattggaac tgcgagagac ctcagtcaca ccaagtaacc 1080  
tgtggggcgg ccagggtta ttgggagtga gcattcgttt ctgcagcttt gatggggcaa 1140  
atgaaaatgt ttggcatgtg ctggaggtgg aatcaaattc tcctgcagca ctggcaggtc 1200  
ttagaccaca cagtgattat ataattggag cagatacagt catgaatgag tctgaagatc 1260  
tattcagcct tatcgaaca catgaagcaa aaccattgaa actgtatgtg tacaacacag 1320  
aactgataa ctgtcgagaa gtgattatta caccaaattc tgcattgggt ggagaaggca 1380  
gcctaggatg tggcattgga tatggttatt tgcattgaat acctacacgc ccatttgagg 1440

aaggaaagaa aatttctctt ccaggacaaa tggctggtag acctattaca cctcttaaag 1500  
atgggtttac agaggtccag ctgtcctcag ttaatcccc gtctttgtca ccaccaggaa 1560  
ctacaggaat tgaacagagt ctgactggac tttctattag ctcaactcca ccagctgtca 1620  
gtagtgttct cagtacaggt gtaccaacag taccgttatt gccaccacaa gtaaaccagt 1680  
ccctcacttc tgtgccacca atgaatccag ctactacatt accaggtctg atgcctttac 1740  
cagcaggact gcccaacctc cccaacctca acctcaacct cccagcacca cacatcatgc 1800  
caggggttgg cttaccagaa cttgtaaacc caggtctgcc acctcttctt tccatgcctc 1860  
cccgaactt acctggcatt gcacctctcc ccctgccatc cgagttcttc ccgtcattcc 1920  
ccttggttcc agagagctct tctgcagcaa gctcaggaga gctgctgtct tccctcccgc 1980  
ccaccagcaa cgcacctctt gaccctgcca caactactgc aaaggcagac gctgcctcct 2040  
cctcactgtg gatgtgacgc cccccactgc caaggcccc accaccgttg aggacagagt 2100  
cggcgacttc accccagtca gcgagaagcc tgtttctgcg gctgtggatg ccaatgcttc 2160  
tgagtcacct taactttgaa ccattctttg gaattggcgt ggtatatatta accacgggag 2220  
cgtgtctgga aacgcaaact atcattaatt tcatactagt ttgtaccgta tctgtaggca 2280  
tcctgtaaat aattccaagg ggaaaactaa acgaggacgt gggttgtatc ctgccaggtt 2340  
gagtggggct cacacgctag ggtgagatgt cagaaagcgc ttgtatttta aacaacc 2397

<210> 1494

<211> 2075

<212> DNA

<213> Homo sapiens

<400> 1494

aatcaatgag atcactggat ttggaatga gaaccaagt tacaaggga gcaataagtc 60  
gcctgtgtga agctgtcccc ggggcaaagt gagccattaa aaagcgaaag cctccagtta 120  
agttcctatc aacagtcctt ggcaaaagta atcttcagtt ttcaggaatg aatataaaac 180  
tgaccatctc aacatgcagt ctcacattga tgaatcttga caaccaacag attattgcaa 240  
atcatcatat gcagtctatt tcatttgcct ctggagggga tcctgatact acagactatg 300

ttgcctacgt agctaaagat ccagttaatc aacgagcctg tcacatattg gaatgccaca 360  
atggaatggc ccaagacgtc ataagtacca tagggcaggc ttttgaactc cggtttaaac 420  
agtacttgaa aaatccttct ttgaatactt cttgtgaaag tgaggagggtg catattgata 480  
gccatgccga ggagagagaa gatcatgaat attacaatga aattccaggg aagcagccac 540  
cagtaggtgg tgtttcagat atgcggatca aagttcaagc cacggaacaa atggcttact 600  
gccccataca gtgtgaaaag ttgtgctatt tgcctggaaa ctccaagtgc agcagtgtat 660  
atgagaactg tttagaacaa agcagggcaa taggtaatgt ccatccaaga ggggtgcagt 720  
cccagcgaga tacctcatta ttgaagcaca cgtgccgagt ggatctcttt gatgaccctt 780  
gctacattaa tacacaggct cttcaaagta cacctggctc tgctggaaat caaaggtcag 840  
cccaaccact ggggagccca tggcactgcg gaaaggcacc agaaactgtt cagccgggtg 900  
ccacagccca gcctgccagc tcacattctt tgccacacat taagcagcag ctgtggagcg 960  
aagaatgcta tcatggcaag ctgagcagga aggcggcaga gagcctcttg gtaaaggatg 1020  
gggacttttt ggttcgagag agtgcaacat cccctggcca atatgtgctg agtggactac 1080  
agggaggcca agcaaaacat cttctcctgg tggatcctga aggcaagtg aggaccaagg 1140  
atcatgtatt tgataatgtc ggccacctta tcagatacca tatggataac agtttgccaa 1200  
tcatctcttc tggaagcgaa gtaagcctta aacaaccagt gagaaaagat aataatccag 1260  
cacttttgca ttccaacaaa tgacagtatt gaagcaccat cacactgata tttcaagaaa 1320  
ccccattttg tattaggaca caaagataat ttaaactttg tttatagata aaatagagca 1380  
caaactgtga agtgcattct tccaagacca tcatggacca ggtcctctat aaaatgaaga 1440  
actaacaaaa attagtcttc agaaatgaaa atcagaaaag aggaagaggg ttgggtcattt 1500  
taaaagaaat tatatgtatg cacggatgtc actttttaag gccatattgc attgataaca 1560  
agctaaaagc acaactaaaa tttcacatgc taacgacaac ttgaatgaac tgctggggca 1620  
gtggtatgtg cttttcaact tgataatttg ggggacattt tcatattggg agattaattc 1680  
taagtatctt cattttctat gactatagaa ccatttgcca aaaaaaaaaag cttttcttgc 1740  
tacaaaaaat aagcaatttt cttgagcctt attgacttta ttacattttc tgttttagcag 1800  
catttttcac tgcaatgtta aaataaatat gacattgaat tcgaactgtg tgtatgtcag 1860  
tggaatcaaa tcaaaagcca ctaacatggc tgtctgtttc actggactgt cccatttgct 1920  
ggttaaaagg attggggccc aaatcctctg gcctagcatt tctcagtgtt tgctattcag 1980  
actgtctaaa tacagcatgt gacaagctga agaagccaaa tctagcagtc atttctgatt 2040

tcattatatt ctccccctct tcctgctaaa aagac

2075

<210> 1495

<211> 2463

<212> DNA

<213> Homo sapiens

<400> 1495

gaagatggcg ggcgacaagt caggtccggc acatgtttcc gcggagcggga cccagcaatg 60  
acggatgata tcacctcttc ttctctggtg agagtctgag gatagagact tttttctcac 120  
catgaatgtc accccagagg tcaagagtcg tgggatgaag tttgctgagg agcagctgct 180  
aaagcatgga tggactcaag gtaggacatg accctgccaa ggagttcaca aaccactggt 240  
ggaatgagct cttcaacaag actgcggcca acttggtagt ggaaactggg caggatggag 300  
tacagataag gagcctttct aaggagacca cccgttataa tcatccaag cccaacttgc 360  
tgtatcagaa gtttgtgaag gtattagagg ctgtgggtaa cagagtccat cttttttctc 420  
ttccctggtt tccctggggc ctgaacagtt gccttgtatg ctttatcaat tctcagaact 480  
ttcctaacat agtgggatcc tgtgaccagc cttgctgttg cttacttaga ctgcccagac 540  
cctcagcagg aattgagatc ttcaggttcc gtggatcctg ccatctgtta agggagcagc 600  
aatagggcgt gggaggtagg gtacagtctc ttaagtcagg agctgccaaa ttttgggggg 660  
gccaggggac atctaattca aaggacttag aagccagagg agacctgaga gattatctgg 720  
accatccctg ctttgcagat gtggctaaaa gggtgaaaag tggtttgctg aagagcccac 780  
agctggctag taatggcaaa caggactgga acccaggact tcaggcctcc actttctact 840  
gtaccaatag gaggaagcta acatgtaatg gtcatatgt gctaagggct atacatgtta 900  
cctagcaaat ctttccatt tctctacatc tctgttacca tctactacc cacttcgggc 960  
catcatcatc tcttgccata tttctttctc cagcagcctc ctaagaacac ctgtagtctc 1020  
actccccacc ccaacctttg tggaggatgg acttctccac aaagcatcca gtgttctctc 1080  
taaaacataa atgtcatcat gtcactgggt cttgtttgac ctaggatgac acaatccaga 1140  
tttatcggac tggcttatat ggctctgcat gcctgttctt gccatctcca gcctcatctc 1200

ttcacttttc tccaggacca ctacttttagc ctaaccatta gcataacaga ttccaatctg 1260  
ttttcttttct ttgaaggtac gacagtcttc catcttcagg ttattgcaca tgttgctccc 1320  
tctgcttggg acattcttct ccctttcccc ctttaccttc tgagtttttc ttatcctcca 1380  
gagctcagct tatacatcag ttacttttag aagccattct ctgaagtctg agttgagtac 1440  
ccttcctcta tcacaggcaa cacttccatc atattgccta tntagattcc atctgggctg 1500  
ggcccatctc attcttattc cactctgaat ccccaactcc ttggcccata gtagactctc 1560  
aattaatctg attaaatgaa ggtactgtga acaggtacta tggtcgggggt ggagcggggc 1620  
atctttactg tcagtcactg gcacttgtcc actgtgaaga cctgatgaac cagagcattt 1680  
cctcttcttg ttctgctcac cagccagctg tgggcgagag aggccaaagc tgctgcacat 1740  
cccagcagca gcagcccatc tcctatccaa gttcgagtat gcaggatggc acacctccct 1800  
gtggctcctc aaggagcaat ggtgggggct ggcaaaccac tgcctggagc tataaattct 1860  
tagggggctt ccacaaggga atagggatgg tgatggtgtt gagaaggcct tatctacccc 1920  
catgaccctt cctagatggc tacattgact tcaggtggag agaagccaaa caaagacttg 1980  
gagagctgca gtgatgacga caaccagggg tccaagtccc caaagatgtg agacttcatt 2040  
ttagctcttg gggaatgtgg gaagagatgt cttcagatgg caagagaaag ggctaaatct 2100  
aatgcttgac tgggggcttc ttgggggtgg gtggaactgt gttgtactaa tctttgtatc 2160  
cctagtacct caaaaagtgc caggtcctga acaagaattc agtgttgaag gaatgtttta 2220  
gaaggaggag aggtcaagcc ttccaccag gtctgtttgt aactgctgat ctcccctaac 2280  
agtctgactg atgagatgct gctccaagcc tgtgaggggc gaacagcaca caaggctgcc 2340  
cgtcttggga tcacaatgaa ggccaagctt gctcgcctag aggcccagga gcaggccttc 2400  
ctggctcgtc tcaaaggcca ggaccctggg gcccctcaac tgcagtcaga gagcaagccc 2460  
ccc 2463

&lt;210&gt; 1496

&lt;211&gt; 1898

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 1496

gagaggagca gaggtctgta gaggtagaga cgtaggcttc ggatctttta gaattctgct	60
ggaagtctcc aagtcaagag gatctacaaa gaaatactga gtggagacta tactgagatt	120
ctgttaaaga cccacttgaa ttcagccccc attaggagaa actttggccg gagcagccaa	180
cacatcacct ggaagtcttc agactagact attgaagagt ggatttgtga ctgagggtc	240
ccaagtgctt ccagaagcca ataaaggatc acttcagttt acttcacggc taaggagtaa	300
cccttaagaa ccatggccaa acgcctgcaa gcagagtgtt cctgtccagt ttgcctggat	360
tttttctcct gttccatttc tctctcttgt acacacgtgt tctgctttga ttgcatccag	420
aggtatatac tagaaaacca tgattttaga gcgatgtgcc ccttgtgtcg agacgtggtg	480
aaggtacctg ctttgaaga atggcaagtg agcgtcctaa cacttatgac caagcagcac	540
aatagccgac ttgagcaaag tctgcacgtg agggaggagc tccggcattt tcgggaggat	600
gtgaccctgg atgcagccac tgccagctcc ctcttgtct tctccaatga tctaagaagc	660
gctcagtgtg agaagatcca ccacgatctg acaaaagatc ccaggctggc ctgtgtcctg	720
ggtactccct gcttctctc cggccaacat tactgggagg ttgaagtggg agaggtgaag	780
tcatgggtccc tgggcgtctg caaggagccg gctgacagaa agagcaatga tttattccct	840
gggcatggct tctggatcag catgaaggca ggagcaatcc atgctaacac ccacctggag	900
agaattcctg caagccctcg ccttcgccgt gtgggaattt tcctggatgc tgacttagaa	960
gaaatccagt tttttgatgt tgacaataat gtcctcatct atacacatga tggtttcttc	1020
tctttggagc ttttgtgtcc attcttctgt cttgagctct tgggagaagg ggagagtggc	1080
aacgtcctga ccatctgccc atgagaaagt cagcccttcc tagaagcttt ctgagaggtg	1140
aaagagaatt ttggcctgag aaaggtcagc atgattgagg aagagataat gtgctatagt	1200
gcaaagactt ggtaaatttt taaagtagat tttgtagact ttgtagcaaa acaattttcg	1260
gatttttggg gtaaattttg tggaatttgt agctaggtaa ctggggtctt tagggatgtt	1320
attaagtact gtaagcttca gttttctagt ctgtagatgc ggataattgt atctcagtca	1380
aacagctgtg gtaattagag acaatactat gcctttgtct tatagtaaat aacaaataga	1440
gaaatcttag attgtaagta agctagatat taggttttgt ggatagacaa tatctttttc	1500
attatttcaa gctgttttgt gtaattcctg ataattgtct aggaggaaga aaaattcaac	1560
agccagtgtg agttattttg ttgatacagc atgaaatttc agagacaaac tgatattggg	1620
gaagaactaa gtttttcatt tttattttct ttgaaacaca gccacataag ttttcttgaa	1680

agacaaagaa ctttgaccaa aatgcattgt taatggatgat tcatattctt atgggaagtg 1740  
tcatttaccc atctcaataa ttggactatt gtgatttata agaattctta tcaaccatgt 1800  
taactaacac atattcatca aaaattgttt tcaaggttgc ttttggattt tttatttgta 1860  
gaatttattt tcttgcaa ataaatttataa agcattgg 1898

<210> 1497

<211> 1423

<212> DNA

<213> Homo sapiens

<400> 1497

gataaccagc aaaactgcaa agggaggcag gaaaaccacc cgcagggagg ccagtgtggg 60  
ttaaaggatga tggcattccc cagccctgcc cggcaccggc ctccaagcc tgggacctgg 120  
gggctccctg cctccttcca gatggaggaa gtgagaccag gaccacagac tgggcgctcc 180  
ctgctgagtc tgtggccctg aaggctgttc agctctaagc gtcggtgcac ggacaggcca 240  
gacagggctg tattgttcca atcgccctgc aagaatcaca gccagacggg ggcttccga 300  
gtgctgcccc ccttgccggc acgcaggagg aggtggcatg gactggggag gaggaagcac 360  
tctcactcct gctggagcct ctgcccagga accccgattg gccagccgt ccctggggag 420  
gcccattcca cgtgtcccgc accccgtgtc tgtcagcact gatcagggtc tcccagacac 480  
ctgctctggg gttgccatgg ggacgagcgg gaggggtgagt gtggcgacac cagctgtctg 540  
tagacacaca gagggcatgc acgcatgtgt ctgtgtcac ctgcatgtgt tcacacggac 600  
tgggcaccgc cggaggtgtt cacacagcgg tgtacaccga cccctctgca gatgtgcaca 660  
caccagcaa ggctacgtcc acaggcgtgt atgtgttctt gcaccaggag gtgggtcacg 720  
ccccacacca cacatcgtat actctgtccc tgcggcacgc acctgtctgg gtgcaccagg 780  
cagtctaagc ccatgtcacc tatgtgtaca catatgtgca catacctact caggcacacc 840  
agtgtgtgta cacggctgtc caggcacact gggcagtcca agcccacgcc tgcccagact 900  
cttgaatcg ggcaatttct gaggctgccc cgatgggcgt tcctttcccc agccagtaca 960  
tcctctcttc ctaacccac gtctgtgga ctcttaaggt gtccacgcgg ccatgaacat 1020

ctccagggcc tgcactgccc actaccagga cccagcgga acccagcatc tggtcactag 1080  
 gggctctgcat gggcagtcac ttcctggggg cctgcacccc ttaaggaggg tgaaggacgg 1140  
 gccagcccag ctggggctga atcctcacag ccttggtcac ggggagaggc tgacctgcgc 1200  
 ccattttaca gacaacaaaa ctgaggctga gagagtaaca gcccggccag cacatggcag 1260  
 agcgtggcgc aggcccaggc ctgccttgtg aggtccctgc cgttccctgc aggttacata 1320  
 gaggcggaag ctgatgtggc cccactggg cgttctttca ctttctctcc tttgattcca 1380  
 cagtcctcag acctaggaat taaagaaacg tccgtagttt ccg 1423

<210> 1498

<211> 1660

<212> DNA

<213> Homo sapiens

<400> 1498

tattgttttag tgtgtgtgtg tgtgtgtgtg tgtgtgtgtg tgtatgtcag ggtcttgctg 60  
 ggtccccag actgtagtgc agtggcatga tctcggtcgc ctgcagcctc aacctcctag 120  
 gctcaagtga tcctcctgcc ccagcctccc gagtagctga gactacaggc acgcaccacc 180  
 acgcctggct gatttttgta tttttttag agacggggga actcaccatg ttgccaggt 240  
 tggctctgaa ctctggact ctctgcctt ggccctcctaa agtgatggga ttacagggat 300  
 gagccagggc acaagtgttt caaaggcttt gttccaagat aaaaaagata aaacatctct 360  
 ccagtttctg aacagacaaa ccagaattca gtgtgatcaa gtggaagaaa ggcaaaaaga 420  
 gaagttttta tgggcactta gtttattttg ttaggaaatt tggacaatgt tatgtgataa 480  
 ctaagaacac aaaagcaaag aaacaaaaga agcatcgcat gccgatggga aaagtggaac 540  
 taagacggag ctgcatagcc atgagcatgt ccatcagacc aaacacgagg agttgtgatt 600  
 tcatttccct gaggtcagtg acctggacag tttcacagct gctgtgctgt tctcatattt 660  
 ttccatgaga tcgttcctat tagtttggaa gcttttcaga cggaaagaca tgaaacacca 720  
 aagaaaaaca gcaacagagt tcaagaccac agaggagggg gagaccagac aggatgggaa 780  
 ggatgggagt cttacctaca gggcagatac ctgcagcccc tgcccggagg ccgggggccc 840

gcctagcagc agcattgctt ctggcagcag catttctgtt ggcaacagcc cttcccatag 900  
 ccacagccac acgagccgca ggtgcggcgg cagcagcaga tcacgggagt gctgcagcag 960  
 cctccacagc agccgcggca gcaggggcag cagctggagc agcagcccac ccggtagcac 1020  
 ctgcaggtgg tgcagctgcc acagccacca ccacagccac caccgcagcc accaccgcag 1080  
 ccaccactgc agccaccacc acagccacca ccacagcggc caccacagcc accacaactt 1140  
 ccacaaccac agcaacccat ggtgtcagta gaggactcag gtgaagttag cagagaggac 1200  
 tcaggagagg tgaggaggtc tgatgcctcc ttctgctggg ggacaccctt atgtaccatc 1260  
 ttggggaaag gaagaggag tgaccagga cacatgacca gtggtcactt cttgtttgtt 1320  
 gctactgcag tttccatgat aaggttatct aggactattc cttgtttaca tccttatgga 1380  
 ctatatgtga cccaaaacat ttgctaattt tcaacttgtct ctgttaaaac cagattaaaa 1440  
 gcaagccaag agatgctaac atgtaggaga ggatcttcat ttactcagaa accacttgaa 1500  
 tccttgagac ttcgggttaa gccggaaccc aagggtggctg ccagctgctt ttccatctct 1560  
 ctgccatggc ttctctccag gaaatcacc tgctttcatg gaaattcccg agatgcaaaa 1620  
 gagtaaataa gagcatcaa ataaaacatg tcatttttgc 1660

<210> 1499

<211> 2639

<212> DNA

<213> Homo sapiens

<400> 1499

gatgaggtca cagagttgtt aaaggaggcc tcattagatg cgctctctga cagggaagtt 60  
 ggcataaggt ctgtttcttt gctgggtcat attttacagt gtgatctctt cactctgaaa 120  
 gcagagaaac acattttcaa tatattttcc attacggctc cttctagaac actgtgttgt 180  
 ttctcctagt aaaggggcta ttccttgaaa aataactcta ggtttagctg attttattgt 240  
 ttttattaat aattgacgat gcctctaaga aaaaggaaat cccagagag gactgcatct 300  
 tcaaaatccc ccgaaatctc taggtcccat gtaaacagta taaaggaaag aacgtcatca 360  
 gttggtttgc ctagtgttat tccaaactct acacgccgtg tgagctttgc acctaacctg 420

ccttctatga aaacatctca ggatattgga gactctagga tctctctaaa gactcttttg 480  
aatgctatta aaacatgga gggaagactg gaaggcaaaa tagagattct agcctcaaga 540  
cctttaataa atgatgaatc accaaatfff cttaaacagg actcggtgaa atctattctt 600  
gaaagaagta aagaggagct gtcccgaaca gtgaagtgtc gtaatgcggc cctgaaagag 660  
agccagaagt tgaaagaaga cctcgaggct gtggaggaca gggaaaacaa gaaggtggga 720  
aactttcagc gacaattggc agaagctaaa gaagacaact gcaaagtcac aatcatgttg 780  
gagaatgtgc tggcttctca cagttaaaga ataatgggtc tgagttaaag agggcatatt 840  
gcctctatgt tatgagagaa caaggatctc aatcaacaga ggggtgcagaa gctggaagct 900  
gaagtggacc agtggcaggc caggatgctt gtcatggagg accagcaca cagtgaagatt 960  
gaatctctac aaaaagctct aggtgtagcc agagaagaca acaggaaact tgctatgagt 1020  
ctggaacaag ctctccagac aaataatcat ctgcaacaa agctagatca cattcaagag 1080  
caattggaaa gcaaagaact tgagcgacag aatttgaaa ccttcaaaga ccggatgact 1140  
gaagagtcca aagtggaagc agaattgcat gctgaacgca tagaagctct aagaaagcag 1200  
tttcaaaccg agagagaaac taaaaagaaa gtggcacaac gggaagtggc tgagctgaag 1260  
aaagcccttg atgaagctaa cttcagatca gtggaagtgt cccggaccaa ccgagagctg 1320  
cgacagaaac ttgcagagct agaaaaaata ctagaaagta acaaggagaa aataaagaat 1380  
caaaagaccc aaattaagct ccacttgtca gctaaggcga ataagtctca gaatatagaa 1440  
aggatgaagg ttgtatggga aacctcttct cacttcctgg ataccctgtg aggatgtagt 1500  
cagtcaatgg tgtctaggga agacaggttt tagaacccta ccagcccat gtattctctg 1560  
ggaattatag ccagttgtct ttggggagac tttttcagtg gagtcactgc tgtgtaaatg 1620  
tttgatttct catttgctgc cagtgtcaca ttccggctcc ctatctgtcc cttccgtgtt 1680  
gattgtactg gactttgtc ttttgggatc agtgggctag atgggaaaga aagctcagca 1740  
ggaactggta actttgggtc tcatattgga ttctttctgt catcctatag gcaaaaagag 1800  
caagccagtt tttccactga tcatcttttt atgttatttt ccaattactt ttagcaaata 1860  
gaaaaagaat tgaagcaaat ggagctaatt aaggatcaat atcagaaaaa gaactatgaa 1920  
cagtctttga gtatccagag atttgtgtgt gaaatgacta acctgcagaa agagatgcag 1980  
atgttggcta agagccaata tgatgcctca gtgcggaata aacagcaaga gctgcaccta 2040  
gaagcagagc ggaaaaataag gcaggagcta gagaatcggg gccaggaatt ggaagaaact 2100  
gtcagacacc tgaagaaatg taaagaggca acagagaata cgctgaaaga agccagtgtg 2160

gaatcagaac agataacagc taatctggaa gaagctcatc gctggtttaa gcacaggttt 2220  
gatggtctac aacttgagct gacaaaaaac cggttgcaga ggccttctgg ggaagacagg 2280  
tggcaggaaa aggaccaaga tgtaaaacat gatgtcatgt ccaaccaatc tgttctgcat 2340  
cgatgggaga gaaaacagaa tcttaggccc atgcccaaga agtatcattc tgaggtacag 2400  
aggaagtgat gtccttgaca agggagcttc tttatgtgta gctacactcc atgattccaa 2460  
gagcccagca gccggggctg gcctgtttct agagtcataa gaacatgaag tctttgatgt 2520  
gggctgaaga ttttggacct gagtttatca ctttatgaac tcttatatca gtacaaaact 2580  
accccttttt ttgtcccttt tcacattttc cacccaataa atttgtgtta atttgttgt 2639

<210> 1500

<211> 2175

<212> DNA

<213> Homo sapiens

<400> 1500

attaatcaat gcagagacgg ggcaagtgga gtatttgcag ggttggcctg gagcccagca 60  
tgcgccccct cccacacatc caggacaggg atctggacgg ctgtgggttc aggtcaacaa 120  
atgtccatgg agtcacccat caatccaagg ctcccagcag aaggcagaca gtgtgacttg 180  
gctacaggct ttgccattcg ctgcctgtga gacacaagca agtaggcgaa gatatccaag 240  
cctcagttct catgaagcat cagaatgatg gtgccactgg ctacatggag aagcaaggag 300  
aggagaatgc tagctgcact ccctggctac acgcaaacag atgcagcacg aagccttggg 360  
aaccttggca agggatttaa acagtctccc tctaatgcat ataacatggg gctgctggat 420  
ttcccagaac aggattttta gatggttccg agagtggaac ctggtaactc ctgggagcac 480  
ctctctgctt ggtctgctct ggggggtgggc tgctggccca tctgtggcta gcctcaggat 540  
agagggaagg gagctgcagc agctgccatg acgtgttggg aagggaactg tcatgtttgc 600  
agcagccctg gtgggtctga tgttttttta attatccttc aagttccaaa agcacatcca 660  
tgtctctggg gacacataac aagccatgtc actttatgtt cttttggaac tatgtctctt 720  
tggactgtct ggcttatagt tgttgttcag ggccaagtga tgtgtcacc ttctctgaaa 780

tgtctgcatc ctgtgaattg tttagcctac tttcccctga ccccaggctc aggccccctct 840  
tctctgctct caccatacct ttcacccac atccagtcct ctcccaaaat cctcccagtt 900  
ttacttctgt gcccttttga gagggcacag tcatttatac tttaagcttt ccaccagaaa 960  
gtcggatgct gaagatgtcc aggacaaact taagtttcag tgtttgttga actctctgtg 1020  
ccctctccag tagactgcct ttcctcatgc cctcagactc tactctacct gcctgttctg 1080  
caggactaac cccacgtgga gacagtcagc cccacccca gtggggacat gcaactggaga 1140  
gcttccagaa ggcctgcaga tagcttctct cctgccctac catagtgccc gaaattccca 1200  
ccagaaatgc cactcttgtg gattacagca tccagctcca gaaagccttt gagttgttac 1260  
ctcaattttg cttttgagga aatgaaggat gaggattcca gtgacttttc caagttcaag 1320  
atcaaccact ggcaagatca gagctgaacc tggccaaatg aacacaaatc ccatgctctt 1380  
tccacaccac cacactggtg caggaaggac gatttgattt ttcacagctc tagagcagga 1440  
tgacttgccc agatttcacc ccttgagaat taggaggagg gaaaggggaat ttcagaggat 1500  
ttcttcttct tcttcttctt tttttttttt tttagatgg agtcttgctc tgtcaccag 1560  
gctggagtgc agtggcatga tctcggtca ctgcaacctc cacctcccag gttcaagcaa 1620  
ttctcctgcc tcagcctccc gagtagctgg gattacaggc gtccatcacc atgcttggt 1680  
aatTTTTgta ttcttagtag agatggggcc accatattgg ccaggctggt ctcaaacttt 1740  
ttaccttggt atctgcctgc ctgggcctcc caaagtgtt ggattacagg catgagccac 1800  
catgcctggc ccagttttct tctttatact tatTTTTca agacattgca gcattgcctt 1860  
aacctctctc tttctTTTT tttttttttt tgagatggag tctcgctttg ttgccaggc 1920  
tggagtacaa tggcatgac tcagctcact gcaacctata cctccctgag gcaggagaat 1980  
cgcttgaacc tgggaggcag aggttgcagt gagctgagat cgtgccactg cactcaagcc 2040  
tgggtgacag agcgaaactc cgtctcaaaa aaaaaagttt cttccttaca tgtatgtttc 2100  
tattagtttt cttcttggtc tttctcattt agtcttgtgt tgtcttttgg cattcatagt 2160  
aaacttttat ctgcc 2175

&lt;210&gt; 1501

&lt;211&gt; 2101

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 1501

attcttttct	tggacccaaa	gatgcaagtc	cctttgaggc	cccgacgacc	ctgggcagca	60
tgcaccatac	cagagaatcc	aaggatggag	agccaagccc	acgatcagct	gcccacacca	120
tgcccaggag	gaagaaaggc	tactgcgagt	gctgtcagga	ggccttcgag	gagctccatg	180
tgcactttca	gagtgccag	caccggagct	ttgccctgga	agcccatcta	tatgcagaag	240
tggacaggat	cattgctcag	ctcagccaca	gctttgcaga	catccctttc	caggctggcc	300
tccccagggtg	gtcaggttcc	ccagctttctg	attgtgaccc	tctctgtcct	gagactctgc	360
acccccatca	gccctcccat	cccagggcag	catctcccag	gataaggaaa	gaagacagct	420
gccaggcatc	agtgaccaa	ggcagggctg	cgggccagca	gcatggaca	gaatcactag	480
atggtgtgat	gggacctcct	gcaagtcaca	catgtgtgag	tgccacaacc	ctcctgccgg	540
ccttgcccaa	gggctccagg	gagcagggt	gcctctgtcc	ctgcccagcc	tcctttaccc	600
agtctcatct	ggtcacttcc	ttggctctgc	tgccctgggga	gtggtcgcct	gcagaggaca	660
tgcccctcca	tcctcccaa	gaaaactcct	ttgccccggc	ggacattcct	gttaagggcc	720
cactcctctt	ccctgaagcc	agaccgtggc	ttatgtctgc	acgtgctgg	gttcgtcctt	780
ttccttttgt	gacatgggggt	tgctcattc	cccatgacac	caccctctg	catgaggaag	840
tttccccctg	ccctgtctc	agacttggat	acctttacct	gctgtcaca	caaagcctgt	900
ggtgccgggt	tcgggtgcc	tcattgtcaa	ctgcaggacc	cattccccga	acctcacatc	960
cgtgtaccct	tgccttcccc	tcctatctca	atgatcatga	ccttggacat	ctctgccagg	1020
ccaaacccca	aggctggaac	actcctcagc	catttctcca	ttgcggcttc	ctggctgtag	1080
actcaggtta	gaggtgaacc	cagaacacct	gagacttgac	ccaggatgga	tgggtgctgc	1140
ttgatgtgaa	tgaggtcccg	cagtggctcc	ttggcgtgag	cactgctcag	actcctttcc	1200
actccagccc	cctttccaca	tcgcaccaga	tgacttttac	ccagaccag	tgggcattgc	1260
cttatcttgc	agtcagtccc	ttttcaacat	gttgccgttt	ctttctgaag	aggtgtcctc	1320
cctccacaag	tcacactgtc	tgccctggc	cctccagccc	acctcgccaa	ccactcttgt	1380
tggtttcctt	ctcagacttg	ccacctttcc	cctctgcccc	aaaatgccat	gtcctctctc	1440
tggaaaacac	ttgagttgat	tcagtaaata	gacttcaagt	acttgaaggc	tcccaccttc	1500
tgttctctgg	ctccttctctg	cggctctatac	ctaccgcctc	ctcttcacct	ccttcccttc	1560

cacacttcct tcctgggtag ctctgcctga agcattccac taagatcatc tattccaagg 1620  
 tcatggacag gctactggtg accaaagttg gtcccttttc tcctttcttt cctccttgaa 1680  
 gcctggctcc cttggtcgca gcagcccctc agtggcctgg ttctcctgtc cccctgcctt 1740  
 tcctcaccat tgcccattcc ctggttcgtt cattcagcac aggccttgcc gtctgccttg 1800  
 agtcagctcc gagacacctg aagagcccctc cagccctaac tactttactc agactaggtc 1860  
 cccaggcctt tgttcttgcc tcttctcgtc gagcctttca cttctcggca gatgtgaccg 1920  
 attggtagct ccacccaac tcccttctgc tgggtggaat gcaggagcta gctgcctcca 1980  
 actcactgtg acctcagaaa aatgccttta ttactcgggc ctcagtttcc tcgtctttaa 2040  
 gtaaggggct tggatgagat gatttcagga ccctttccaa taataaaata ctgtgactgc 2100  
 c 2101

<210> 1502

<211> 1864

<212> DNA

<213> Homo sapiens

<400> 1502

gcataccagg tagatcaaga tgcacacacc agaagatgat agagtatgac aggatccgag 60  
 ctacaagcaa ggagcttgga gtcaacaagg ctttaaacag gggaaggatg ccaacaccta 120  
 gttttccgta tcccgggtgg tgcctctact tatggcaagt gtgtccatca gcagaaagaa 180  
 taaatcgctt cttggaacac ttgccacctt ccatctcgtt tgatgacgta cacgttttct 240  
 cctgagacaa gcaagctccc acacgggtcaa cccacaccg gagccgagaa ccggcctctc 300  
 cccaactcct ggaccccagg aaagctggca aagcgctgat cccagagtg gcaagaggct 360  
 tagggcgggg atccagacac ccagggaaaag aagtgtgtgc ccaggacccc agccaaaaga 420  
 agagactaga ctactgaag gagacgagaa taaaagtcct ctgctgcgca gttcagccgc 480  
 tcccacatcc cgccccaatg cgtgtgtctg cccactgata tcggtgtact ccgaaaaggg 540  
 ggagtcatct ggcaaaaatg tcactttgcc tgctgtattc aaggctccta ttcgaccaga 600  
 tattgtgaac tttgttcaca ccaacttgcg caaaaacaac agacagccct atgtgtgcag 660

tgaattagca ggtcatcaga ctagtgctga gtcttgggggt actggcagag ctgtggctcg 720  
aatccccaga gttcgagggtg gtgggactca ccgctctggc cagggtgctt ttggaaacat 780  
gtgtcgtgga ggccgaatgt ttgcaccaac caaaacctgg cgccgttggc atcgtagagt 840  
gaacacaacc caaaaacgat acgccatctg ttctgccctg gctgcctcag ccctaccagc 900  
actggtcatg tctaaaggctc atcgtattga ggaagttcct gaacttcctt tggtagttga 960  
agataaagtt gaaggctaca agaagaccaa ggaagctgtt ttgctcctta agaaacttaa 1020  
agcctggaat gatatacaaaa aggtctatgc ctctcagcga atgagagctg gcaaaggcaa 1080  
aatgagaaaac cgtcgccgta tccagcgcag gggcccgtgc atcatctata atgaggataa 1140  
tggtatcatc aaggccttca gaaacatccc tggaattact ctgcttaatg taagcaagct 1200  
gaacattttg aagcttgctc ctgggtgggca tgtgggacgt ttctgcattt ggactgaaag 1260  
tgctttccgg aagttagatg aattgtacgg cacttggcgt aaagccgctt ccctcaagag 1320  
taactacaat cttcccatgc acaagatgat taatacagat cttagcagaa tcttgaaaag 1380  
cccagagatc caaagagccc ttcgagcacc acgcaagaag atccatcgca gaggcctaaa 1440  
gaagaaccca ctgaaaaact tgagaatcat gttgaagcta aacccatatg caaagaccat 1500  
gcgccggaac accattcttc gccaggccag gaatcacaag ctccgggtgg ataaggcagc 1560  
tgctgcagca gcggcactac aagccaaatc agatgagaag gcggcggttg caggcaagaa 1620  
gcctgtggta ggtaagaaag gaaagaaggc tgctgttggt gttagaagc agaagaagcc 1680  
tctgggtggga aaaaaggcag cagctaccaaa gaaaccagcc cctgaaaaga agcctgcaga 1740  
gaagaaacct actacagagg agaagaagcc tgctgcataa actcttaaata ttgattattc 1800  
cataaaggctc aatcatTTTT ggacagcttc ttttgaataa agacctgatt atacaggcag 1860  
tgag 1864

<210> 1503

<211> 1801

<212> DNA

<213> Homo sapiens

<400> 1503

attaggaagg cccccagctg tggccagccc agggccgggc tgcccaccgt gccagcccag 60  
tttcaatgac ccacctgagg gtttccatcg tgggccaggg gaccggcgca ggcgcatcc 120  
ggagccaggc agtggccagc ccatcccggg cagggtcata ggtggggctg caggcctcga 180  
agccgccatg tgaaggcagc agcgacccca ggcagggcgg gccaggttga ccttgcacct 240  
gctctccctt cagccccgcg gccatgccga ccctggtcgt gggcacgccg cccacctgcc 300  
tgggggacac acctcagccc tgccacaaga acagccagag gcagggcccc ttctcccatg 360  
gggccccagg gagagcagcc gactggaagg ctgttgccaa gcccaggctt tgcgcacctg 420  
cagctgagga tgacgtggca gccctgaggt ggcccgggcc ctcccagcag ccagaccac 480  
cctgggcagc tccccacgtg gtcgggtctg acgacctcaa ggaaccaggc ccctggggga 540  
aggcgtgcag cctgcccattg tgggtccacag gcccggaggc tagggatggg gacagctcgg 600  
tgtcatcggg ccgcctctcg tgctcttcgg ggggccacga cgtgtgtgtg tcttggaagg 660  
agaggccacc ccaggtgttg gggccccagc agaggcccag aaagagtgc gcgcggctgg 720  
agcagctgag agacaagatc cgggcccagg cgtggcagca ggggagctgt gcgtccctgg 780  
gcacctcagc cccctccagc gcctccagac tccacaaagc ctccatgctg acgcttagga 840  
ggaaaggcca agaggcaaaa aatccccctc cagcccctga atgctcaggt ttcagcatct 900  
tgagtgcagc tgagcgcaga gttgaagcca aggcattcca cggccagggg cgcgagctct 960  
ccagggtctc ccagcaccag gttcctgttc tgagggaaaa acccaaaagg gtcaaaagca 1020  
gttcttgcaa aagagagaag acccccaagt tgccctcccc tagaagagcg gccaaagaca 1080  
aacacaaaga cgaaggttgg cagtcttgct cccattttgt agatgaggca accgaggttc 1140  
acagagtttc cacagcctgc ccggggctgc acagaggcag agcctccac ccgtccagcc 1200  
caaggccggt gctcctaacc tggaagccca gccgtgtgca cctggggcca cgcctgggca 1260  
gcttgtcgag gccaccctcc aggcgtggat tctggggcca ccgaaccaca gcattttgga 1320  
gacaccagca agagccccc ggtggagtga acgcctgaga ttggctttgt gggaccctca 1380  
ctccaagtgt gagcagtgcc agctcgctgg ccactcctgt aatgctccat gcctcagttt 1440  
ctccacactg cgtgcaatca cagccccggg gccgtgggga ggggcactgc gtggcgtgcg 1500  
ttctgtccgt gccagggtgc ctaagcatct gtcccgtgtc atcagttgcc ggcccctctg 1560  
ctcctaggca gagcagcagc ttccagccga gagtaaacgc ctctgtgccc ataccagggg 1620  
aggacacgcg ggtgaggtgg gagctcagcg gggctgcggg gccaccgtgt gcattcagcg 1680  
gggccagagg ccgagcagaa ggggactgcg atgtaggac ccgggcaccc agaaggttcc 1740

ggaaggccgt ggaaacatgc gtacaatata acaattttct gcatgatcac cccctccctc 1800  
c 1801

<210> 1504

<211> 2043

<212> DNA

<213> Homo sapiens

<400> 1504

agccgagtcc ggccctccat acccttgggc ggagcaggag gcagggccgg gctcgttgcg 60  
cgcctgatca gtgcagcccc ggcctttgtc ccctaccctg tttctgcaac tacatccccg 120  
accctgtcct gggaccttcg tcccggagcc caggctctgg gatttcctc agtccttggc 180  
agggttgaaa gtccgggatg gggacttcct aaagctccgg gacgccgtgg gatgggctca 240  
agtgcgggtg gctttgcca gaccgcagtc gggaagtggg aactggacag taggggtgcg 300  
ggggaggctc tccagggtgc tcgggaatgt tctcaggaag aagacttgac atagagcaag 360  
agctggttcc acaccggaga ggcggggatt tccctaggat cactggacct gctgggatca 420  
gcctctgccc agccctggca ggggagggag ttgacgggct gacacaggaa actcccctga 480  
aacctgtttc tcagcttccc ggcccagctg gggcacccac tggaaggaga ggccaggcgg 540  
aagaccctgg ctccgtcatg gcctctgccc tgaggccacc ccgtgtcccc aagcctaagg 600  
gtgtcctgcc ttcacactac tatgagagct ttctagagaa gaaggggccc tgtgaccggc 660  
ccaggaaaaa ctccgtgaac ctcagctgct ggggcgaagg ccaggacagg attacaagaa 720  
gttctgggca ggcctgcagg gtctcaccat ttatttctac aatagcaatc gggacttcca 780  
gcacgtggag aagctcaact tgggagcatt tgagaaactc acagatgaga ttccctgggg 840  
aagctcacgt gaccctggca cccacttcag cctgattctc cgggatcagg agatcaagtt 900  
caaggtagag accttggagt gtcgggaaat gtggaaaggc ttcattctaa cgggtggtgga 960  
gctccgtgtc ccgaccgact tgaccctgct tcctgggcac ctatacatga tgtctgaagt 1020  
cttggccaaa gaggaggcgc gccgtgcact ggagacaccc tcgtgcttcc tgaaggtgag 1080  
ccggctggag gcacaactgc tcctggagcg ctaccccgag tgcgggaacc tgctgctgcg 1140

gcccagcggg gacggcgccg acggcgtgtc ggtcaccacg cggcagatgc acaacgggac 1200  
 gcacgtggtc cggcattaca aggtgaagcg ggagggcccc aagtacgtga tcgatgtgga 1260  
 acagccgttc tcttgacact ccctggacgc cgtgggtcaac tatttcgtgt cgcataccaa 1320  
 aaaggcgctg gtgccattcc tgttagacga ggactacgag aagggtgctag gctacgtgga 1380  
 agccgataag gagaatggcg agaattgtgtg ggtggcgccc tccgctccgg gccaggtcc 1440  
 tgcaccctgc acaggtggcc ccaagccgct gtcacctgcg tctagccagg acaagctgcc 1500  
 cccactgccc ccactaccga accaggaaga gaactacgtg acccccattg gagatggccc 1560  
 agctgttgac tatgagaacc aagatgtggc ttcctctagt tggccagtca tctgaagcc 1620  
 aaagaagttg ccaaagcctc ctgccaagct tccaaagcca cccgttgga ccaagccaga 1680  
 gaaggggttt caccatgttg ccaggtgtg tctcgaactc ctgacctcaa gtgatccacc 1740  
 cacctcagcc tcccaaagtg ctgggattac cggcgtgagc caccacact ggcctcatct 1800  
 gtcttctctt ccagagccca aagtctttaa tgggtggcttg ggcaggaagc tgccagtcag 1860  
 ttcagcccag cctctcttcc ccacagccgg gctggcagac atgacggcag agctacagaa 1920  
 gaagctggag aagaggcggg cactggagca ctgattcgga cacaccagg accagcgggc 1980  
 tagtcccagg gcatggccca gcggccagat tctttttccc aggattaaaa ctctgacccc 2040  
 agg 2043

<210> 1505

<211> 2082

<212> DNA

<213> Homo sapiens

<400> 1505

gttctaaacc gcccacgtca gcgcctggcg cgggcccga ccaaccacgg catggagacg 60  
 gaatgatgca gactcctatc cgcgagatac ctgctgtaat ttcgctgtgg ttcgtgagga 120  
 cgctcctgg gctgccctga gaagcctacg tctccccttc gaggcccggg aagacctccg 180  
 acccgcgtga caatgctggg ccctcagcca gacctgccct gcgtgccacg ttctgttcta 240  
 agatcgggct gccgagctgt ggcctggaag cccagtggga gtcataagga aggggaacacg 300

tgtggagccc ttgtaggggg aggggcagcc ctgcagagat ctaagaaaaa attccgaaa 360  
aatgagcagc aacctccaag gccaggcatc ggtgcagggg acaaggggtc gtagctggag 420  
gggcttaggt gaggctgccg ggaaggacg atgtggttgg tggagtgcac aggcaggac 480  
ctcactggac tttcctgtct gctcggcatg gacaggcagc ccaggagaag gcagcacgtg 540  
gccgggtgca gggacgtacc acccccactt ccccagggga gctggggtca gacgagtccc 600  
aggcactcca tcctctgcag caagtcaggt tgtgatttac tagggggtgg tgaatataat 660  
ggagagactt ctggggagga attcctggct cccgcgtgga cttgcagagc tcaacaggca 720  
gccacgtggc tgagtgtcca gcaaacatca cataaggctt tgggtcctgc aggtggggct 780  
gccatgagca gcaagctcag tccagaagaa cagttcctct ccaggatcca cttcctgcgc 840  
acttttatgt gcagtgtagc tggagcagag ctccccgaa ttccacaggc aactgagaac 900  
ggagagggat gcaggccagc cagggatcca gcgtcttccc catcgtcact ctccatggcc 960  
tccgtctgca cacagtgttc gtctgcacag cttgtcagcg cgttatcatg acttctatit 1020  
ggcaccggcc cgtctgtcca ctgtcctggc ttgttccaag cgctgccttc tccaactggg 1080  
gtcctggctg cagagctgtc tgctccccac gttgggcaac tccagccaag attcctacac 1140  
ccaaatgtga ccgtgttgct cacgaagaag gctcagcttt gcgtgtgccc agccgtgtgc 1200  
acagctcgtc ccaactcctg cgggtggcac ctgcctctcc cacctccagt ctttcccctg 1260  
tgatgagcag atgaccaccg ccctccaggg tcagcgtttg gctgtttgtg tgcctgccc 1320  
ccgcctccc tgtgcctggg cctgccctgt gcctgcacac aggaggggct catggcgttt 1380  
gccctacacg gatgggctgt cctgggagct actggacagt caccttggtg ggaatgccag 1440  
aggcatgggc attaggtccc cccggccagc ctccgttgcc acatgggcta tttttgtcca 1500  
tcgcgtggga caacctagta ttgggggaaa actcagtcca ctctaaagaa gcacggcgt 1560  
tttgatgga cgaatgctgc ttcacgcgac tccatgtcaa tggactatit tattcaactc 1620  
gggtatitit gagtgtctcc tctgtgccag ccacgtgtga aagaagaact ccaagttact 1680  
ggacaccagg acaaaccagg agtctcgctg tgtcaccag gctggagtgc agtggtgtga 1740  
tcttggctta ctgcaacctc tgcctcccag gtccaagtga ttctcctgcc tcagcctccc 1800  
aagtacctgg gactacagat ctttagataa gcactctttc aaccaaatgc caatcagaaa 1860  
atctttgaat ccacctgtga gctggaagcc ccgtgtgct ttgtgtgtc ctgccttttc 1920  
ggaccaatgt aaatctcaca tgtactgatt gatgcgtaca tctcctaaa acgtataaaa 1980  
tcaagctgta acccaaccac cttgggcatg tgttctgagg acctcttgag gctgtgtcac 2040

tggtcatgat ccttaacctt ggcaacataa acttctaaac tg

2082

<210> 1506

<211> 1941

<212> DNA

<213> Homo sapiens

<400> 1506

ttacaatcat ggtagaaggc aaagcgttac caaagatgtc ttacatggca ggagcaagat 60  
gaaggaggag aagtgtaca cactttttaa caatcagatt tcatgaaaac tcattcactc 120  
actatcacia ggacagcatc taggggttgt gtaacccat tcgtgagaag ctgccctcat 180  
gatccaatca cctcccacca tgccctgcct ccaacattgg ggattataat tgaacatgag 240  
atgtggatgg ggacacagat ccaaaccata tcaaagtgtg tggttttttt ctttttggga 300  
ttgtttgctt ttctagacag ggttgtctca ttctgttttt tcaggctgga gtgcattggc 360  
gcaatcgtag ctcaactgca gcctccaact cctgggctca agcagtcctc cggcctcaga 420  
ctatatTTTT tttgtgattg gcaggacatg tacctttgat ttgccaatat attcttcaag 480  
atagggctat ggctgtttgc tcacatagaa gtaaggaaat gagacattta taaaatgtat 540  
cagatttgtg cctgctgcct cctccccctc ctctcctta ggccagcaac ctgctgctcc 600  
tgggcacttt tcaaccagta aaagaatatt agaatgggcc ggggtgcagtg gctcatgtca 660  
gtaatcccag cactttggga ggacaaggca ggacagatcac ctgaggtcag tagtatgaga 720  
ccagcctggc taacatggtg gaatcctttc tgtactaaaa atataaaaat tacccaagca 780  
tggtgggtggg tgcctgtaat tccagctact tgggggactg aggcaggaga atcgcttgaa 840  
cctgggagac ggaggttgca gtgagccgag atcacgcact ctactccagc ctggcgacag 900  
agtgagactc cgtctcaaag aatattggaa agtgattacc tgtgttctag atgataattc 960  
tgtgacgtcc tggaaaagaa agttgggaag gcttaacaac atcacagtga cctcatttgg 1020  
tcatatgtgc accaccttcc tgtctgagaa ccacctgcac tattatggac ttgacctttt 1080  
tatcaactca cttgaactgg attcttaaaa gttgttatga ccagtgtgaa taaaaaacia 1140  
tcttcagttg tcttacatag atggcaaccc taaacataca tatatatgaa acttacatgg 1200

catcattaaa ttctaacctt acactgttac ctgccaaagt tatggcctga gaccgggcct 1260  
ttcattgttt aaaatggaga ttgacaggga gtaggaaagt gtcaaagaca ggctagcttt 1320  
aaactaagac tttctcctcc gtatgatcaa gatggaaatg caggtggaga gggagggagt 1380  
ggtgttcttg ctctgcgttc cacaggcacc tgggatcgtc tcatgggtag cacaggtggt 1440  
gcacagccta catgctcaat gacactgaat gctgagggcc tgcgtgggct gatgccaccc 1500  
cgcgagggtc tcttcttctt tctttttccc tctctttcct ctctctctt ctttcttcag 1560  
tttttttttt tttttttttt ggtggtgggg ggcccacctc atagttttgt tctgaacgta 1620  
tgtaaaacca ctaacagaaa tattttaaaa ttcaggataa gggccggggg cagtggctga 1680  
cgctataat cccagcactt taggaggcca cggcgctag atcacgaggt caggagtgtg 1740  
agaccaacct gaccaacatg gtgaaacccc ctctgttcta aaaatacaaa aattagctgg 1800  
gcatggtggc gcacgcctat aatcccagct actcaggagg ctgaggcaga agaattgctt 1860  
gaacccggga ggcggagggt gcagttagct gagatcgtc cactgctctc cagtctgggc 1920  
ggcagagcga gactctgtct c 1941

<210> 1507

<211> 2546

<212> DNA

<213> Homo sapiens

<400> 1507

aaaagagaaa ctcatttcag cccagccct ggggctgcct gacctgacaa agccatttac 60  
actatatgtg tcagagagag aaaaaatggc agttggaatt ttaaccaga cggtggggcc 120  
ctggccaaga ctggtagcct acctctccaa acaactagat ggagttttta aagattggcc 180  
cccgtgtttg agggccttgg cagcaactgc cctgctagca caagaagtgg ataaactaac 240  
tcttgggcaa aacctgaaca taaaggcctc ccatgctgtg gtgactttaa tgaataccaa 300  
agggcatcat tggctcatga atgctagact aactaggtac caaaacttac tctgtgaaaa 360  
gccctgcata actattgaag tttgcaacac cttgaacccc gccaccttac tcccgggtacc 420  
agagagccca gttgaacaga actgtgtaga ggtattggac acagtattatt ctagcaggct 480

ggacctccaa gaccatactt gggcatcagt agactgggag ctgtatgtgg acaggagcag 540  
ctttgtcaac ccacaaggag agaggtgtgc gtgatatgca gtggtaaccc tggacgctgt 600  
cattgaagcc aaatcattgc cccagggtac ttcagcccag aaggccgaac tcattgcttt 660  
aatTTgggcc ttagagctaa gtgaaggtaa gactgtaaat atttatactg gctctcggtA 720  
tgccTtctta accctcgaag tgcatggggc gttatataaa ggaaaagtcc tgttgaactc 780  
tgggggaaaa gacatatatc agcaagagat cctgcagtta ttgaggcagt atggaagctc 840  
caaaagggtgg cagtcatgca ctgcaaagaa caccagtgaA cttccacctt gattgcattg 900  
ggcaactcct gagctgactc agaggctcga aaatcagcat ccacccccta ccgggcatca 960  
gtcacagtcc ccttgcTccc tcaggTacct gacctgttac ttacttaatc taaagaagag 1020  
aaggaccttc tccaggcaga gggagggcag gtgatagaag aaggatggat ccagttgttg 1080  
gatggaagaa tagccatgcc ataactgcta ggagccgcag tcgtactggc tgtgcaggag 1140  
accacccacc taggtcaaga tcacttgaaa agttgttggg ccagtacttc tacatctcgc 1200  
atctgtcagc ccttgccaga aatagtggTg cagcagtgtg ttgcctgccg gcagcgcagt 1260  
gctgagcaag gtccaacat cccacccggc atacgagctt ctggagcagc tccctttgaa 1320  
gatttccaag tagactttac tgagatgccc aaatgtggag gtaacaagaa attgctagtt 1380  
ctagtgtgta catactctgg gtgggtagag gcctatccaa cacggactga gaaagctcgt 1440  
gaagtaaccc gtgtgcttct ctgagatctc atccctaagt ttgggctgcc cttacgaatc 1500  
agcttggaca acgggctggc atttgtggct gactcggTac agaagacagc aaaggtgatt 1560  
gggtgtggat caaggattgg aacatagccc cgTtgcggcc acagtggaaa ggaccccaga 1620  
ccgttgtctt gaccaccccc acagccataa aagtagagga aatcccagcc tggatccacc 1680  
acagtcatat aaagcccgca gcacctgaga cctgggaggg gaaaccaagc ccagacaacc 1740  
catgcaaggt gactttgaag aagatgacaa gccctgcccc aatcacaccc ggaagctgac 1800  
gggtccacgc atggccaaag catgaggaaa ctcatcgtgg gactcatttt ccttaaattt 1860  
cggacttgtg cagtaaggac ttcaactgac cttcctcaga ctgaggactg ttcaagttac 1920  
tgagtagggc aaaaagttaa aacagtcttt ctgttttata gttattatga atgtactgga 1980  
ctctaaaagg gacttgtgtg tataatgcca ccagTacaa ggaatgcac ccaggaagtg 2040  
accaacctga tgtgtgctat aacccgTtag aactacttga tctccgttgg aaaacaggag 2100  
agtatgtaac tctaggaatc gatggaactg gactggcagg aagacctggg ttgtgaacat 2160  
gacagtgaga actctcacta gtgaatgagg ttctcaaagg gggaaatgag gagcgaggcc 2220

atttctctta ctgtctcctg tctctgaaga gaaggaggaa gtaaaaagtt gaaaaacaac 2280  
aggaatgaag tcagtggcaa ggccagccag tgccactgat gaccaggcct gaggttaaaa 2340  
ggttaacccc ccactctaac cacatctgct cttaatctat cacaaccgtt tcatgtggaa 2400  
ccccttagag ttgtaagccc ttaaaagggc caggaactct ggctttggcg agctcggttc 2460  
ttgagacatg agtctgccga agctcccggc tgttgagacg tgagtctgcc gaggtctccg 2520  
gccaaataaa gccaaatcct tccttc 2546

<210> 1508

<211> 1732

<212> DNA

<213> Homo sapiens

<400> 1508

agcagacctc agtcattggc aggtaggccc tcaaggggcc tcgtccggat ttctgggtat 60  
cctgtctcaa aggccctgcg atgcagcagg accctgagtt gccctctgtg actcgttttt 120  
gcctgccact ctgcgccagg tgctacgtgc agccccagtg ggtgtttgac tcagtgaacg 180  
ccaggctcct tctccccgtg gcagagtact tctctggggg gcagctgccc ccacaccttt 240  
caccctttgt gaccgagaag gaaggagatt acgttccacc tgagaagctg aagctgctgg 300  
ctctgcagcg gggagaggac ccaggtgagc gggatgggac tgggctggcc ttgacccttg 360  
ggccccacgt ggctgtttcc cttagctgcc aaggtggaaa gctccaggga acaggcagta 420  
ggagcagaaa gccctttgaa gtcacctgta gaataaggct taggagaagg gacatctacc 480  
tcctggggtc aggtgttatt tgacgttcag gatgactgag cagaagaaca tgctgcattg 540  
tcatcagagt ttacattgga ggcgacagag ctcaggactg ggggtcttgg aatttcctct 600  
gatggcagct gggctgtggg gaggtgcaag agagggccac aattgggaca tccctgaact 660  
gccccatggc aaagacggca gggtcagaga ggatggggcc tgggcctgtt gtcaccctgc 720  
cagagagaca gtagattccc agggcattca gaggacattg gctttctcta ggaaacctga 780  
atgagtcaga agaggaggag gaagaggacg acaacaacga aggtgatggt gatgaagagg 840  
gagaaaatga ggaggaggag gaagatgcag aggctggttc agaaaaggag gaagaggccc 900

ggctggcagc cctggaagag cagaggatgg aggggaaggt agggggagct gcaatgcggg 960  
 gcttggcctg ggaagcggcc ctgcttggtg cctgctctgg cctagaaggt caggagccag 1020  
 aggactgtgg aggtcgggag aacctgcccc cataagcacc ctccttgtgt cccagaagc 1080  
 ccagggtgat ggccaggcacc ttgaagctgg aggataagca gcggctggcc caggaggagg 1140  
 agagtgaggc caagcgctg gccattatga tgatgaagaa gcgggagaag tacctgtacc 1200  
 agaagatcat gtttggcaag aggcgaaaaa tccgagaggc caacaagctg gcggagaagc 1260  
 ggaaagccca cgatgaggcg gtgaggtctg agaagaaggc caagaaggca aggccggagt 1320  
 gagtgcctgc ggccccctac agggctgagg ccagccccta gcagctggat gtggcagagg 1380  
 caggccagag gacctaatg tgatggacca gagtcacttc tctcctcct ttctccagcc 1440  
 agccctgacc cctcatgctc tctggctggg ccagtgggca gccctcgctt cccttggtatg 1500  
 gagctgccct gctggtgcct ggtcagagaa gaggcctctg tgcccagcct gattctctgc 1560  
 tcccaggagc cagtacatg aggtgcagag gccacccag cccctacct actgccccca 1620  
 ttcatcctgg ctttccacag cccctccca cacagttgga cccgtgattc tcagggtgct 1680  
 gtgatggggt gagggtaggg ggagcatttg ttattaaatg actggacttt tg 1732

<210> 1509

<211> 2129

<212> DNA

<213> Homo sapiens

<400> 1509

aagtactgca ttcaaagaaa tacaacaca accagaaagt attataagtc tatattcagc 60  
 atttcaaate tgtcctgtct atcaaggaaa caccgaagga ggaggtaaatt tcttaatgca 120  
 tagcagacat ttaaaaattc tctctcacca ttgctgcccc gtcactacc tgcatgtgaa 180  
 tgccagcttg tctcttgagt tgtctctttc ctattctcag cttccacccc caaacacatt 240  
 tagagcacag gtcttttctg tcacacttgc cagtcttctt tgctgtctct tattatgtaa 300  
 atcaaattca ccactctgtc ctgttttggt ttcatctctg cttcactcaa taccgagact 360  
 ccctcaggac cgtgttgctt ctgccctgaa tgagttcttt tctcccgggc tgcagggacc 420

acagaggtct tcttcttatt acttcatgga ctgtatgaat tccaccacc tggtgacatc 480  
atggcaggtg gtttgagat gaactggtat cctgccctgt gttaaattgc ctcagactgg 540  
agctcagaac ttttgagtat tttcaaaagg gtcaccgtgt ctccagagaa atgctcccaa 600  
cagtcctaac tgaagtcagc actgaactgg gcaaaggact caagaaaaaa agtttccttc 660  
ctcctcgatg tgttgctcaa agcactgcgt gagaccacac ggagcagtat ctaagcattg 720  
agcaacactc agaagggcag caggacaaat gcgtagctgc taatgacccc tctcctgcca 780  
atgctttcct ccctcagccc cctctagggg caccgaacag ctgtaaatac aagctgacca 840  
ccctcaagga gctgggatgg agggaggttt tctccagtct ccagttctgc ctttgcacct 900  
ctgtggcctc tcaaattgct agccagtatt ttgagtacac ccaacctcac ccaggagata 960  
tatgtcacc agaaacatgt gctctccaga aagtcttcct gacatcatcg gggcagtcct 1020  
cctccacctc ctctcttcc cagcaattcg ttctgcaaat taatgccatc caaacaatcc 1080  
tcgagaacta tctaggaaag gacgaggacc aaattaccaa gcctttggat ctaatccatg 1140  
tggcatccca tctgtgagct ccggggagat tcaaagttgg ccagtgtgagg aggccaatca 1200  
tatttatacc atttccatat ggcacctttt gattgagact tggcaagcac atgatcgat 1260  
tggaggaaga cagagagcaa gacgttggaa caagcagcag ggggtggagcc tgggacacaa 1320  
ggtcagcaca tagcaagccc ttgctttgga gcagaggtgg ccggtttcca gggcagtgag 1380  
tatttgaggc agtaattgtg atcttcagct tcttggtgc aagtatcacc tgtgagaaag 1440  
caggcattgg gtgtgattaa ttagtatgct tctttagcat atggggtgag ggagggacag 1500  
gggctaattt gagcagtcag ggacaaggag tcaacatcag tgtggagtga taacgtttgt 1560  
acaccaagct ggtaaataga catcctagtt acatatgatt ctattggcat tgcctacaga 1620  
ggagaaaaaa gtgatcaagt ggttgtggat tttatgtttg cttacctgtt ttttaaaaaa 1680  
aaggtgaata aggaacttta taaagatgtt ggattccagc atgttagaca ttgtagtgga 1740  
ttgaattttg atccccaaaa agatatgtcc caagtcttaa cctcacagta gctgtcaatg 1800  
tgagcttata tagagccttt gcaaatgtat taagttaagc atctccagac gagatcatcc 1860  
tggattcagt gtgggctcta aattcaatga ctggtggtgg tacaagagaa aggagagaga 1920  
gacaaacaga ccagagaca cacagagggg aaggccatca gaagacgagg cagctattgg 1980  
agttacgcag ccagagccaa gggatgccag aagccaacag aagctggagg agtcaaggaa 2040  
ggattctccc ctagaaccct ggaagggact gtggccctgc tgacgctttc tgggctccaa 2100  
aactgagtga gaataaattt ctgttggtt 2129

&lt;210&gt; 1510

&lt;211&gt; 2233

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 1510

acctcaccat	caagaaaggc	cctgggtccag	gatgtgcaag	gtgtgatgaa	atcacagggc	60
tggggaaggt	cagctcgggg	tcacaagaag	cctgatgggc	aggaaagagc	atgaaagccc	120
cagccagcct	cacctgtgcg	gctgggagga	ctcacagaaa	ccctctgtac	ccagtcattg	180
gccaaagaca	ccgtcatgca	aggggggtgaa	ggctccacac	tcgtcccggc	cccgggcgtg	240
gaagcaggac	ctcgagcagt	ctctggcagc	agcctatgtg	ccggtcgttg	tggactctaa	300
ggggcagaat	ccggacaagc	tcaggttcaa	tttctacacc	tcccagtact	ccaactccct	360
gaaccccttc	tacactttgc	agaagcctac	ctgtggctac	ctgtaccgcc	gggacactga	420
ccacacccgc	aagcgctttg	atgtgcctcc	tgccaacttg	gtcttgtggc	gctcctaggc	480
ctgagccaaa	cggaagcccc	cgacccttca	ccctcacccc	tgtgacctca	ggtecccaag	540
gggaagggct	gctcactgca	ggaggagtga	cctatatctg	ggctaagaca	gctgtgccat	600
gcccacctat	tgacaatgat	aaagggaggt	ctctcttctc	agcagcagtt	aaagtttgtc	660
cttcctttcc	ctggcatctg	aatgggtggc	tgtgggggtac	agtctcccct	ggggctgcaa	720
ggatttagtg	gagactctta	acaccagttc	tctggcatct	gtgagtttga	gtgtgggcca	780
tcattcttct	ccttctgctc	tctccctctc	cacatttccc	ggtaccatct	gatccatcag	840
gcccttcttt	gctcaggcct	gaaggactca	ggcctgtgag	agaggacggc	cccgttgtcg	900
gccaagacac	ctttgggcga	ggagcagcga	acagggcctg	tccatctcag	acgtcagccc	960
cctgaaggcc	tgagcaatgg	gcaacgtgat	ggaggggaaag	tcagtggagg	agctgagcag	1020
caccgagtgc	caccagtggg	acaagaagtt	catgactgag	tgcccctctg	gccaactcac	1080
cctctatgag	ttccgccagt	tcttcggcct	caagaacctg	agcccgtcgg	ccagccagta	1140
cgtggaacag	atgtttgaga	cttttgactt	caacaaggac	ggctacattg	atttcatgga	1200
gtacgtggca	gcgctcagct	tggtcctcaa	ggggaaggtg	gaacagaagc	tccgctggta	1260

cttcaagctc tatgatgtag atggcaacgg ctgcattgac cgcgatgagc tgctcaccat 1320  
 catccaggcc attcgcgcca ttaacccttg cagcgatacc accatgactg cagaggagtt 1380  
 caccgataca gtgtttctcca agattgacgt caacggggat ggggaactct ccctggaaga 1440  
 gtttatagag ggcgtccaga aggaccagat gctcctggac aactgacac gaagcctgga 1500  
 ccttaccgcg atcgtgcgca ggctccagaa tggcgagcaa gacgaggagg gggctgacga 1560  
 ggccgctgag gcagccggct gagtgcaccg cccggctgct tctgcactag cgggtggggt 1620  
 ggtatggtgg tgcctgttgg tgggtgttctt gtcttaacct tagatagaat ctaatgaact 1680  
 cagaggctta gctcgcctct ttaggggtcca tgggtggcagc agagaggcag aagtgggagt 1740  
 ccagagccag gaacagtga ggtatggttcc tggccccctc gactgacagc tgggtggcagc 1800  
 actccttgct gggggggcact gttcaacatc cctctgccgt cgggtgacct cctagccctt 1860  
 ctgactcctc tcccagcttt tcccagcttt cccactgag cttctccagt ccatgctctt 1920  
 ctggacgtgg actctctgag gcagaactga gcttttccag gcctcttatg gaatcctgca 1980  
 gatccagtgg ctgcagcttc aatcccagtg ctgcaatcac acatccattc tgccctgggg 2040  
 gaccctggag cctacttggt cgctttgcat ttcatgatt gacgcctccc ttcaacaagc 2100  
 atttactgag cgcctactat gtactaatgc tagatgttag atgtacaaag aagacagttt 2160  
 tcatcctcta ggaactcata ggctaattgt gagacacaca gacaaacatc attataataa 2220  
 aatatgctaa gag 2233

<210> 1511

<211> 5069

<212> DNA

<213> Homo sapiens

<400> 1511

gtgcttcccc ctgcggggac gttcgagcaa tggcagccct gctgagatcc gcgcgttggt 60  
 tgctgcgtgc cggggcggcc ccgcgcctcc cgctctccct gcgcctcctc cctggcggcc 120  
 cgggcccggct gcatgccgcc tcctatctgc ccgccgctcg cgccggggccc gtggccggag 180  
 gactactgag cccagccagg ctgtatgcca ttgctgccaa agaaaaagat attcaagagg 240

agtcactttt ttcttctagg aaaatttcca atcaatttga ttgggctcta atgagactag 300  
atctttctgt tcgaagaact ggccgcattc caaagaagct tctacaaaaa gtttttaatg 360  
atacctgccg ctcaggtggc ctaggtggta gtcatgcctt gcttctacta cgtagttgtg 420  
gttctctctt gcctgaacta aagcttgaag agagaacaga atttgctcat aggatatggg 480  
acacacttca gaaattaggt gctgtgtatg atgtgagtca ctataatgct ttacttaaag 540  
tctatcttca aatgaatat aaattctcac caactgattt cctggcaaaa atggaggaag 600  
caaacattca accaaatcga gtgacatacc agagattgat tgcttcttat tgtaatgtag 660  
gagatattga aggtgccagc aagattcttg gatttatgaa aactaaggat ctcccagtta 720  
cagaggcagt attcagtgcc cttgtgacag ggcatgccag agctgggtgat atggagaatg 780  
cagaaaacat tctcacagtg atgagagatg ccggaattga gcctggtcca gacacatacc 840  
tcgcattatt gaatgcatat gctgagaagg gcgacattga ccatgttaag cagactctgg 900  
agaaggtgga gaagtccgag cttcacctta tggaccgtga tttactgcaa attattttta 960  
gcttcagtaa agctgggtat cctcagtatg tctcagaaat tttggaaaaa gttacatgtg 1020  
aaagaagata tattccagat gcaatgaacc tcattttact tttagtcact gaaaaattgg 1080  
aagatgtagc gttgcaaatt ttactagcat gccccgtatc aaaggaagat ggcccaagtg 1140  
tctttggcag tttcttttta caacactgtg tgactatgaa tacgcctgtg gagaagctaa 1200  
cagactactg taagaagtta aaggaagtcc agatgcactc ctttctctg cagttcaccc 1260  
tccattgtgc tttactcgcc aataaaaactg atttggcaaa agccttaatg aaggctgtga 1320  
aggaggaagg ttttctatc agacctcact atttctggcc attgctagtt ggacgtcgga 1380  
aggaaaaaaa tgttcaaggt ataattgaaa tcctcaaagg aatgcaagaa ttgggagtac 1440  
atcctgatca ggaaacatat acagattatg tgattccatg ctttgatagt gtaaaactcag 1500  
cacgagccat tttgcaggaa aatggatgtc tgtctgatag tgatatgttt tctcaagctg 1560  
gattgagaag tgaagcagca aatgggaact tagactttgt attatcattt ttgaaatcaa 1620  
atacattgcc catctcgctg cagtctataa gaagtagcct actgctaggc ttcaggaggt 1680  
ctatgaatat aaatctttgg agcgagataa cagaattgtt gtacaaggat ggacgttatt 1740  
gccaggagcc tcgaggaccg acggaagctg ttggctatth tctttataac ttgattgaca 1800  
gcatgagtga ctcagaggta caggccaagg aggagcattt gagacaatac ttccatcagc 1860  
tggaagaagat gaatgtaaaa attcctgaaa atatctacag aggcatcgt aatctcctgg 1920  
aaagctacca tgttctgaa ttgattaagg atgctcactt gttggttgag agtaagaatt 1980

tagactttca aaaaactgtg caacttacat catctgaatt ggagtccaca cttgaaacac 2040  
taaaagctga aaatcgacct ataagagatg tcctaaagca actcatatta gtgctttgtt 2100  
cagaagagaa tatgcaaaaa gcccttgaat tgagagcaaa atatgaatcc gacatggtta 2160  
ctggtggcta tgcagcttta ataaatttat gctgtcgaca tgataaagta gaagatgcct 2220  
tgaacttgaa agaagaattt gaccgcttag attcatctgc tgtccttgac accggcaagt 2280  
atgtaggcct tgtaagagta ttggcaaagc atggcaagct ccaagatgct attaacattc 2340  
tgaaggagat gaaagagaag gatgttctta tcaaagatac aacagccttg tcctttttcc 2400  
acatgctaaa tggcgcagct ttaagagggtg aaattgaaac agtaaaacag ttgcatgaag 2460  
ccatcgtagc tctagggtta gcagaacct ccaccaacat aagtttccca ttggctactg 2520  
tacacttgga aaagggcgac ctatctactg ctcttgaggt cgccattgac tgctatgaaa 2580  
agtataaagt attaccaagg attcatgatg tcttgtgtaa actggtagag aaaggcgaga 2640  
ctgatctaata tcagaaagca atggactttg tgagccaaga acaagggtgaa atgggtgatgc 2700  
tctatgatct cttctttgcc ttctacaaa caggaaatta caaagaggcc aagaagatca 2760  
ttgagactcc agggttaga gctcgatctg caaggcttca gtggttttgt gacagatgtg 2820  
ttgcaaataa tcaggttgaa actctggaaa aattagtgga gctgacacag aagctatttg 2880  
aatgtgatag agaccagatg tactacaatc tgctaaaact gtataaaata aacggtgact 2940  
ggcaaagagc tgatgcagtc tggaataaaa tccaagaaga aaatgttatt cctcgtgaaa 3000  
agacattaag attattagca gaaatcctta gagagggtaa ccaggaagtt ccgtttgacg 3060  
tacctgagtt gtggtatgaa gatgaaaaac attccctgaa ttcttcgtca gcctcaacca 3120  
cagaacctga tttccagaaa gatatatattga ttgcctgccg attgaaccaa aaaaaagggg 3180  
catatgatat tttcctgaat gcaaaagagc aaaacattgt gttaaagct gaaacctaca 3240  
gcaatctcat taaattactg atgtcagaag attattttac acaagcaatg gaagtgaag 3300  
cattcgcgga gaccacatc aagggttca cactgaacga tgctgccaac agccgcctca 3360  
tcataacgca agttaggcgg gattatttga aagaggctgt gacaacactg aaaacagtat 3420  
tggatcagca gcagaccct tctaggttag cagtgaccg tgctattcag gcattggcca 3480  
tgaagggtga tgttgaaaac atagaagtag ttcagaagat gttaaagga ctcgaagact 3540  
ccattggact ttcaaaaatg gttttcatca ataacattgc tttggctcaa ataaagaata 3600  
atgacataga tgccgcaata gaaaacattg aaaatatgct tacttcagag aataaagtca 3660  
ttgaacccca atacttcggc ttggcatact tattcagaaa agtaatagag gagcagttgg 3720

aaccagcagt tgaaaagata agcatcatgg cggagagatt ggccaatcag tttgcaattt 3780  
ataaacctgt cactgatttt ttccttcaac ttgtggatgc aggcaaggtg gatgatgcca 3840  
gagctctcct acagagatgt ggtgcaattg ctgaacaaac cccgattttg ttgttgttcc 3900  
tccttaggaa ttctaggaaa caaggaaagg catcaactgt gaaatctgtg ttagaattga 3960  
ttcctgaatt aatgaaaag gaagaagcat acaattccct catgaaaagc tatgtctcag 4020  
agaaagatgt cacatctgct aaagcactgt atgaacattt gactgcaaag aatacaaaat 4080  
tggatgatct gtttctaaag cgttacgcat ctttgctgaa gtatgctgga gaggctgtcc 4140  
ctttcattga accccctgaa agctttgaat tttatgcaca gcagctaaga aaattgaggg 4200  
aaaactcttc ttgaaataac caggcgatac tttgttttgt atatatttgt gattctgtgt 4260  
ctacatgtta ttttgaagta tatctgaggg aaaaataaat gaaaattttc tttatgtact 4320  
tatgtatgtg tgatgcatgt tcaaagtctt attgaccata actctgtgca cttggttatt 4380  
ggacattttt ggagtttttt tctctgggaa aaatcgatag tgttttcttc aatgctgctg 4440  
ctgtgtgaag ccatactttt tcaggattct tcccctaatt ggctctttgg tttccctgct 4500  
ctgtttcatt tatttcatta aaatgttatt cctttattta agattcactt attagtctgc 4560  
tgtttctctg aaaaatttta gagctaggta tagtgaccgt gaactttcta acgcataata 4620  
ttctgtgata cagccattcc gtacatgtgt gaagtcctgc ataactttcg aactttgtta 4680  
aatgttggca ctaggagtca tcagatctag gcttcatcat tttccagtga gaagcagaga 4740  
cccaaagggc ctgttacttg tgcttgggtc ggggactgtc tgtcatgcct ggaggctctt 4800  
cggcacactt ccccatcttt cccttctgcc actgtggctt caagcacctc tgttcatagg 4860  
gcgtctctga aattgagtct cggtcatgac ttatcccgaa gtagagcaat gtgtttcctc 4920  
tcattgtagt ttcaggactt tgtcagtaca agctctgccc taggcttggt actttatact 4980  
catatcctga aaagatgtga tttcatctat gaaggggtaa aatattgggt tgtatttaat 5040  
tgtttgaaat aaaagtgatc cctatattg 5069

<210> 1512

<211> 4048

<212> DNA

<213> Homo sapiens

&lt;400&gt; 1512

agatcaaaaa agacaaagaa gggcattgca taatggtaaa ggcacataa aaacaaaaag 60  
agctaactat cctaaatata tatgccctca atacaagagc acccagattc ataaagcaag 120  
ttcttagaga cctacaaaga catttagaca cccacacaat aatagtggga gactttaata 180  
tcccactgtc aatatttgat acatcaatga gacagaaaat taacaaggat attcaggact 240  
tgaactcagc tctggacca gacagaccta tagacatcta cagaactctc caccaccaat 300  
caacagaata tacattcttc tcagcaccat atctcactta ttctcaaact gaccacataa 360  
ttggaagtaa aacactcctc agcaaatgca aaagaatgga aatcataaca gtctctcaga 420  
tcacagtgc atcaaattag aactcaggat taagaaactc actcaaaact gcacacctac 480  
atggaaactg aacaacctgc tcctgaatga ctactgggta aataatgaaa ttaaggcaga 540  
aataaataag tttttgaaac caatgagaac aaagacacaa ttacagaat ctctgggaca 600  
catttaaagc agtgtttaga gggaaattta tagcactaat gccacagga gacagcagga 660  
aagatctaaa atagacaccc taaaatcaca aaagaactag agaagctaga gcaaacaaat 720  
tcaaaagata gcagaagaca agaagtaact aagatcagag cagaactgaa ggaaatagag 780  
acacaaaaca cccttcaaaa aatcagtga tcaaggagct gtttttttta aaacattaac 840  
aaaacagata gagtagatta ataaagaaga aaagagagaa gaatcaaata gacacaataa 900  
aaaatgaaga agggaatatc accctgatcc cacagaaata caaactacca tcagcgaata 960  
ctataaacac ctccatgcga ataaactaga aaatctagaa gaaatggata aattcttgga 1020  
cacatacacc ctccaagtc tagtccagga agaagttgaa tccctgaata gaccaataac 1080  
aagttccgaa attgaggcag taattaatag cctgcccaacc caaaaagcc aaggaccaga 1140  
tggattcaca gccgaattct accagaggta caagaggagc tgataccatt ctttctaaaa 1200  
ctattccaaa caatagaaaa agagggactc ctccctaact cattttatga ggccagcatc 1260  
atcctgatac caaacctgg cagagacaca acaaaaaaag aaaatttcag ttcaatatcc 1320  
ctgatgaaca catcgatgca aaaatcctca ataaaatact ggctaaccga atgcagcagc 1380  
acattaaaaa tttatccacc atgatcaagt cagcttcac cctgggatgc aaggctgggtt 1440  
caacatatgg aatcaataa acgtaatcca tcacataaac agaaccaatg acaaaaacca 1500  
caattatctc aatagatgca gaaaaggcct tcaataaaat tcaacaccct tcatgctaaa 1560  
aacactcaat aaactaggta ttgatgaaat gtagctcaaa atagtaagag ctatttatga 1620

cacagccagt atcactactga atggacaaaa gctggaagca ttctctttga aaaccagagc 1680  
aagacaagaa tgcctctctt caccacttct attcaacata gtatgggaag tacaggctgg 1740  
ggcaatcagg caagagaaag aaataaaggg tattcaaata ggaagagagg aagtcaaatt 1800  
gtttctgttt acagatgaca tgattgtata tttagaaaac ctcatcatct cagcccaaaa 1860  
actccttaag ctaataagca aattcgacaa agtctcagga tacaaaatca atatgcaaaa 1920  
atcgcaagca ttcctataca tcaataatcg acaatcagaa agccaaatca tgagtgaact 1980  
cccattcaca attgctacta agagaataaa atacctagga atacaactta caagggatgt 2040  
gaaggacctc tttgaggaga actacgaacc actgctcaag gaaataagag agaggacaca 2100  
aacaaaaaac attccactct catggatagg aataatcaat atcgtgaaaa tggccacact 2160  
gccccaaagta atttatagaa tcaatgctat tcccatcgag ctaccattga cttttttcac 2220  
agaattagaa aaaaatgact ttaaatttca tatggaacca aaaaacagct cgtatagcca 2280  
agacaatcct aagcaaaaaa gagcaaagct agaggcatca tgctacctga cttcaaactg 2340  
tactacagtg ctacagtaac caaaacagca tgggtactgat atgaaaacag atatatagac 2400  
caatggaaca gaactgaggc ctacagaaata acaccacaca tctacaacca tctgatcttt 2460  
gagaaacctg acaaaaataa gcaatgggga aaggattccc tatttaataa atgggtgttg 2520  
gaaaactggc tagccatatg cagaaaacta aaactggacc ctttccttac cccttataca 2580  
aaaattaact caatatgaat taaagatgta aatgtaagac ctaaaaccat aacaacccta 2640  
gaagaaaacc tagacaatac cattcaggac ataggcatgg gcaaagactt tatgactaaa 2700  
acacccaaaag caattgcaac aaatgccaaa attgacaaat gggatctaag tagactaaag 2760  
agcttctgca cagcaaaaga aactattatc agagtgaaca ggcaagctac agaatgggag 2820  
aaaatttttg caatctatcc atctggcaaa gggctaacat ccagaatcta caaggaacat 2880  
gaacaaatgt acaagaaaaa aacaagcaac cccatcaaaa agtgggcgaa ggatatgagc 2940  
agacactttt caaaagaaga catttatgca gccacaacaa aaatgaaaaa cagctcatca 3000  
tactgggtca tttgagaaat gcaaatcaaa gccacagtga gataccatct caggccagtt 3060  
agaatggtga tcattaaaaa gtcaggaaac aacagatact ggagaggatg tggagaaata 3120  
ggaatgcttt tacactgttg gtgggagtg aaattacttc aaccattgtg gaagacagtg 3180  
cagtggttcc tcaaggatct agaactagaa ataccatttg acccagcaat cccattactg 3240  
ggtatatacc gaaaggatta taatcatttt gctataaaga cacatgcaca tgtatgttta 3300  
ttgcagcagt attcacaata gcaaagactt gaaaccaccc caaatgccca tcaatgatag 3360

gatagataaa gaaaatgtgg cacatataca ccatggaata ctatgcagcc ataaaaaaga 3420  
atgagtttat gtcctttcca gggacatgga tgaagctgaa accatcattc tcagcaaact 3480  
aacacaagaa caaaaaaata aacaccacat attctcactt ataagtggga gttgaacaac 3540  
gaggacatat gggcacaggg aggagaacat cacacaccaa ggcctgttgg gtgggtggggg 3600  
acaagaggag agacagcatt aggagaaata cctaattgtag atgttgggtt gatgggtgca 3660  
gcaaattgacc atggcacatg tataactgtg taacaaacct gcaggttctg cacatgtatc 3720  
ccagaactta aagtataatt taaaaaatca attttttaaa taattccatg tatatgacat 3780  
actcagaata ggcaaattcta tagagacaga aagtagatta aagacagaac atttcttatg 3840  
atttggggga tgggtggaaag atagggaata tggaggttat tacatgaaag gcatggagtc 3900  
ttttttgaga tgataaaaat gttcaaaatg actgtgggta tgattgcaca tatctacaga 3960  
caaatatctg caaatattga attgtacatt ttaaattgtg aaattgtatg gtgtatgaag 4020  
tacatctcaa taaagttgtt taaaaacc 4048

<210> 1513

<211> 4660

<212> DNA

<213> Homo sapiens

<400> 1513

attcgctgcg gtgctaggac tggataaggg gaagtcctcg ggcctggcg agagccctga 60  
gatcagctct aggctaggga gctcggcaga aaccctggg ggagagaggg caccacagga 120  
gctctggagc cttaggacca tggacgctct caataggaac caaataggcc ctggatgcca 180  
gaccagacc atggtgcaga aaggaccctt ggacctgatc gagacaggca aagggtgaa 240  
agtgcaaagc gacaaacccc acctggtgag cctgggcagt ggcgactca gcacagccat 300  
caccctctg ccgctggagg aaggaggagc ggtgattggc tctgcagcca gagacatctc 360  
actacagggc ccaggcctgg ctccagagca ctgctacatc gagaacctgc ggggcaccct 420  
caccctctac ccctgtggca atgcctgcac tatgatggg ctccctgtcc ggcagcctac 480  
ccggctcact caggtagaga cgggacttca ccacattggc caggctggtc tccaactccc 540

gacctcaggc tgcattgtgt gcctgggtca gtccaccttc cttcgcttta accacccggc 600  
tgaagccaag tggatgaaaa gcatgattcc agcagggggc cgagcccctg ggcccccta 660  
cagccctgtt cctgcagaat cagaaagtct ggtaaattggg aaccacaccc cacagactgc 720  
aacacgggga ccctctgcct gtgccagcca cagttccctg gtgagctcta ttgagaagga 780  
cctgcaagag atcatggact cactggtgct agaggagcct ggagctgctg gcaagaagcc 840  
tgccgcaacc tctccactgt caccgatggc taatggtggg cgctacctgc tgtctcccc 900  
aaccagcccc ggcgccatgt ctgtgggctc cagctatgag aacacctctc cagccttctc 960  
tccactctct tcaccagcca gcagtggaag ctgtgccagt cactcaccca gtgggcaaga 1020  
gccaggacct tctgtgcccc cgctggtacc tgcccgttcc tccagctacc atctggccct 1080  
acagccccca cagtcccgcc caagtgggtgc tcgctccgag agtcctcggc tgagcaggaa 1140  
agggggccat gagaggcctc ccagccctgg cctccggggg ctgctgacag acagccctgc 1200  
agctactgtc ttggcggagc agcgaggagc ctggcggtgc caccacacgc ctatgggaga 1260  
gtatggagcg ctcagatgag gaaaatctca aggaggagtg cagcagcact gagagcacc 1320  
agcaggagca cgaagatgca cctagcacca agctccaggg agaggtgcta gccctggaag 1380  
aagagcgggc tcaggtgctg gggcacgtgg agcagctcaa ggtccgtgtg aaggagctag 1440  
agcagcagct gcaggagtca gcccagaggg ccgaaatgga gcgggactg ctgcagggag 1500  
agagggaggc agagcgggca ctgctgcaga aggagcagaa ggagtggtat cagctgcagg 1560  
agaagctggt ggccttgag acaggcatcc agaaggagag ggacaaggag agggcggagc 1620  
tggccgaggg acggaggcac ctggaggccc gccaggcgct ctacgccgag ctccagacgc 1680  
agctcgataa ctgccccgag tcagtgcggg aacagttaca ggagcagctg agaagggagg 1740  
cagaggccct ggagactgag acaaagctct ttgaggactt ggagttccag cagttggagc 1800  
gggagagccg cgtggaggag gagcgcgagc tggccggcca ggggctgctc cggagcaagg 1860  
ctgagctgct ccgcagcatc gccaaagga aggagcgcct ggccatcctg gacagtcagg 1920  
ctgggcagat ccgggctcag gccgtgcagg aatcagaacg cctggcccgg gacaagaatg 1980  
cctccttaca gctgctgcaa aaggagaagg agaagctgac tgtgctggaa aggagatacc 2040  
actcactcac agggggcagg cttttccga agaccacatc gacctcaaa gagatggaga 2100  
agctgctgct ccctgctgta gacttagagc agtggtacca ggagctgatg gccgggctgg 2160  
ggactggccc cgctgcagcc tcccctcact cttctcccc gcctctgccc gccaaagctt 2220  
cccgtcagct gcaggtttac cgctccaaga tggatggcga ggccaccagc ccccttcccc 2280

ggacccgcag cggccccctc ccctcctcct ctggctcttc ctctcctcc tcccagctca 2340  
gcgtggctac cctggggcgt agccccctcc caaagagcgc tctactcacc cagaatggca 2400  
cgggcagcct tcctcgcaac ctggcagcca cactgcagga catcgagacc aagcgccaac 2460  
tagctctgca gcagaaggga caacaagtga ttgaagagca gcggcggcga ctggctgagc 2520  
tgaagcagaa agcggcagct gaggcacagt gccagtggga tgcccttcac ggggcagcac 2580  
ccttcccagc gggccccctc ggcttcccc ctctcatgca ccactctatc ctacaccacc 2640  
tgccctgcggg gcgggagcgt ggggaggagg gtgagcacgc ctatgatacg ctgagtctgg 2700  
agagctctga cagcatggag accagcatct ccaccggggg caactcggcc tgctccccctg 2760  
acaacatgtc cagcgtgagt ggtctggaca tggggaagat cgaggagatg gagaagatgc 2820  
tgaaagaggc tcatgcagag aagaaccggc tcatggagtc gagggagcgg gagatggagc 2880  
tgccggcggca ggccctggag gaggagcggc ggaggcgtga gcaggtagaa cggaggctgc 2940  
agagtgagag tgcccggagg cagcagctgg tcgagaagga ggtcaagatg cgggagaaac 3000  
aattttccca ggcacgacc ctgaccgcgt acctgccaat ccggaaggag gactttgacc 3060  
tgaagacaca tattgagtca tcgggccatg gtgttgatac ctgcctgcac gtggtgctca 3120  
gcagcaaggt ctgccgtggc tacttggtca agatgggcgg caagattaaa tcatggaaga 3180  
agcgttggtt tgtcttcgac cggctcaagc gcaccctttc ctattatgtg gacaagcatg 3240  
agacgaagct gaaggagtc atctatttcc aggccattga ggaagtgtac tacgaccacc 3300  
tgcgcagtgc agccaagagc ccgaaccag ccctcacctt ctgcgtaaag acccatgacc 3360  
ggctgtacta catggtggcc ccatctgcag aggccatgcg tatctggatg gatgtcattg 3420  
tcacaggggc tgagggttac actcagttca tgaactaact gccgtgggcc tcctggcaga 3480  
gcacaactgg ggcttttgta taagaagact ttaatatct gtaaggagct tggctctgtg 3540  
agtttctggg ctctggcctc ctgaagaacc agccagaaga agaaaagtag aggtggcttt 3600  
gctgcctcct gggagcccag aacttgcagt aaccctttag ggtcctgccc caggcccagc 3660  
cagggctgag gagctgtcac agagagggcc tcagctctga cctgacacct gctctcccca 3720  
gcctgttttc tcttttctaa aagacaaatt atggtacat aagctgcaa agatcccctc 3780  
ctgcctcaga cccctttgcc aggggctttg ggggctgagc agagccacat ccagagtggg 3840  
gtaatagctc aggcggcccg ctccccatt ctcaaacc cgtctgcccc attgttctcc 3900  
tttcccttat actttttatt acctgtctca agggccagag atctcaagt tcaaccttga 3960  
ggtcccagct ccatccccta gttgcagact catcaccatg gttaccatag tgactgcttc 4020

attgccatgg ttacatacta attgctgcag ctctgtggcc cagcccactg cttcagctgt 4080  
 gggccatctg agggtacgtg ccatcatctc tccagcccag gcccctgggc atctcatgct 4140  
 ggggggaagg gactgaatac ctttttcctt ccccctgcct gtgtcttcag ccctgatgca 4200  
 caggctgcca gccccccagt ccagccctct cctttccact ggtgccttgc ttagagccag 4260  
 aagggatgaa gccgggggat ctatggaaca gaggaggagc gatgcagttg ggagaggaag 4320  
 ctagaagggt tatggttga gttctgtaca gtgttgagtt tccgacaggg aaagaggatt 4380  
 cctccaatgc tcctagagag aaagcctgag caggagatga tgcagcagag gggaagggcc 4440  
 ctgtggtgcc gccgcccttc cttcagcctc cgaagggtga tggaaatgga gagtggagga 4500  
 ccaggcctcc agctgtctgg cctcgccctt cacgccttaa cactaagccc acctcccctg 4560  
 ctctccttcc cagcattgag cccttggttg cctggggcca ggctgggggt tttcagtatt 4620  
 tgtaagcatt tcagcagaac aataaagcct ttggactacg 4660

<210> 1514

<211> 3547

<212> DNA

<213> Homo sapiens

<400> 1514

atactgctac aagagacatt ggcatgttaa atacaagtgt cccaaatgac atggatgaac 60  
 agcaaaatgc gagagaaagc ttagaggatc aaaacttgaa agaccaagat catctttatg 120  
 aggaggaaat aggagcagta ggtggaattg actacaatga cacaaatcag aatgcccagt 180  
 ctgaacaaaa tggttcaagt gatttattat gtgacttgaa tacaagttct tatgacactt 240  
 ctgctctttg taatggcttt cctttggaaa atatatgtac ccaggtcata gaccagaatc 300  
 agaatttaca tgggtgattca aaacaaagta acttaacaaa tggagactat gtggcatcat 360  
 cagatggcac ttcaaaacct tccagctcac ttgcggtggc agcacaactt agggaaataa 420  
 taccatccag tgctttgcct aatggcacag ttcagcatat cctcatgcca gatgatgaag 480  
 gtgaaggtga attgtgttgg aaaaaagtag acttagggga cgtgaagaat gtggatgtct 540  
 tatctttcag tcatgctcct tcattcaatt ttctttctaa ttcatgttgg tctaaaccaa 600

aggaagataa agcagtagat acatcagatt tggaagttgc agaagatcct atgggcctcc 660  
aaggaataga tctgatcaca gcagcattgc ttttttgtct aggagattct ccaggaggga 720  
ggggtatatc tgatagccgc atggctgata tttatcacat tgacgttggg actcagactt 780  
tttcaacttcc atctgcaata ttagctacaa gtacaatggg tggggagata gcttcagctt 840  
cagcttgtga tcatgccaat ccacagcttt caaatccaag tccgtttcag acacttgggc 900  
tggatttagt attggaatgt gtcgctaggt accaacccaa gcagcgttca atgtttacct 960  
ttgtgtgtgg acagttattht agaaggaaag aattttcttc ccactttaag aatgtgcatg 1020  
gtgacattca tgctggactc aatggctgaa tggaacagag gtgcccttta gcttactatg 1080  
gttgtaccta ttctcagcgt agattttgtc catcaataca aggagcaaag attatacatg 1140  
accgccattht gaggtcattt ggagttcagc catgtgtatc tacagtatta gtggagcctg 1200  
ctagaaactg tgtgttggga ttacataatg accatctaag tagtcttctt tttgaggtcc 1260  
tgcagcatat tgcaggcttht ctcatgggt tcagcttatg tcagctctca tgtgtatcca 1320  
agttaatgag ggatgtgtgt ggcagcctgc ttcagtctcg tggcatggtc atactgcagt 1380  
gggggaaaaag gaagtatcca gaaggaaatt catcatggca gataaaagaa aaggtatggc 1440  
gatttagtac tgcattttgt tctgttaatg aatggaaatt tgctgacatc ctaagcatgg 1500  
cagaccactt gaagaaatgc agttacaatg ttgtcgagaa acgggaggaa gcaatccctt 1560  
tgccatgtat gtgtgtgaca cgagaactca ctaaagaagg acgttcacta cgctcagttt 1620  
taaaacctgt actttaaaag ttgtaatat actagcacat atatgcaagc acctagtata 1680  
atttctttgt aatatgtgaa actttattaa tgtattaaat attacaacta gctaaattta 1740  
ttgtcactgt gtatataatg ttttgaagtg acatctattht ttataaagta ctgttttagtt 1800  
ggaaaaagtt gccttaatgt ttgaaatgtg tgaaattht ggaacttgct ggacagggtg 1860  
atttaatttht tagctacata attttaagaa ttagtattht cagtgggtgt catattttgg 1920  
ttcttaaat tttgcttctt aaactaaaaa aatcctgacc aatttattht ttgttttctg 1980  
tgggttgcga cccatgcaat caaaaagcaa aattttgatt gagatttht acagcatagg 2040  
tttttcatat aaaaatattc tgaatttgtt aagcactgcc ataatatcat tataatgttht 2100  
ttgtcttht gtgcttccct atacaattgt taatgcacaa atgatctcta atatatactt 2160  
acatacgtaa aatcataaag tttggtaatg cagtttatcg ttttaaaat aatccacaaa 2220  
gatgttht tctcacatac ttacaactca acacacagag tgaccatgtg cagctthtctt 2280  
ttttgttaga tgccacatcc gaagactcat cgcagtgtgt tatatgacag gacaaagcaa 2340

aaacaaacaa aaagcaagcc tgtgaatata atttaatttg aaactgctcc tggattata 2400  
 tatttgctag ttatctaatag ttttaaaaga aaatataacct catttaggtt tgaattgggc 2460  
 gtattgtgta aatttcaaata attcagaatg caaagggcctt gactattaaa tgtttgcctt 2520  
 tgatgtttat aaacattaca actatgttgt ttttaagacat ttaaaaacgt gaaatttggt 2580  
 atctttgtaa aatgacaatc atgcagaaac ctgtcttggt tgacaatctc tttgaaacat 2640  
 ttccgagtta atttcccata ggcttcacca ccaagaaagt aagaattgca tctttacata 2700  
 atgatcaagg tataatggaa aaatataacct attcttgaag tagtttatta tagttttcaa 2760  
 attgatttat accattatta acctgatgtg gtctgcttaa aaaatgaata tatcagtatt 2820  
 tagaaataaa ttgcaaaggt gggaatatat acttaaataa tttgtcttaa gtaaattagc 2880  
 atttggtagt ctgaaatggt gacagattac ttgttaaaat tgtgaaaact ctgttgtgtc 2940  
 ctctcttctt acatttgtcc ctgagagtac tccacgatta ctaggttctt gattccctta 3000  
 tatggcaatc aggcagaggc gtcccttaag cattagagag ttctgaagct taagatttgt 3060  
 tttggttggg tgaagtcctt agtacagttg aaaaacagag cattaaagac taatcaattg 3120  
 ttttgcctca ccagtcattt taaatagtag aatacttatt tctcagtgtc taaaatttct 3180  
 ttttcaactg tgagattgaa taaacagtct ctatttctgt ggaaaaaaca acagaaaaga 3240  
 gatattaaat accataaaat gtaactctgc cttttaaagt tttgctgaag aatgtgtctg 3300  
 tggtaggat agcacaagca ttaacttttg ttttatagtt atgcttttta aaattcattg 3360  
 tttttaaatt tagacttctt atttccacac tggattatga gatacttaac aatttttcca 3420  
 ccttatattt cttttacaca ttttgctgtt ctcttttttg ttattgttat gccaccatac 3480  
 cattttgtta aaatgttttc tttgtgaaac atttgttcaa gttctaataa aattaatgtt 3540  
 ttccctt 3547

<210> 1515

<211> 4531

<212> DNA

<213> Homo sapiens

<400> 1515

tatgtgaatg tattttaacc aaagtggaat cctatgccta gagttttata ttcttccttt 60  
tcttcactaa ctgtatatca agaatagttt cccatgacat taaatTTTTT tatgttggag 120  
cataatTTTT aatgcctttg gaagattcta gtctataaat ggtcaataat ttacttcacc 180  
acttctgtat tactggatct ttacgtcggt ggaatTTTT atcttacaaa tgTTTTtaca 240  
gtgtatgcta gtatgcatgt tgttatccat atttcaaatt atttacttga tgtatatcat 300  
taggagtgag attgccgatc aaaaggcatg catatTTTT aaggctcgtg actcctatgg 360  
tcagttggcc cctagaaaag tgcccgtgtt cagcaccggc ttcagcatga gtcggggggc 420  
tgagattatt gtgggggctg gttgcagggt ctggcgagtt cagtttgtat tggctgttgg 480  
ctttgttgaa gtagtcctct ggaagactta cagacaaatg ccttcatttc catctctttc 540  
tcaggaggag gcaacatggc aagagcagga agcccctcgg agagacactc ccaccgaaag 600  
ttcttgcgca gtggccgcca ttggcacctt ggaaggcagc cccccaggta tctccacctc 660  
cttctttagg aaggtgctgg gctggccctt caggctgccg agggacctgt gtaactggat 720  
gcagggactc ctgcaagctg ctggcctcca tatcagggac aatgcttaca actactgcta 780  
catgtacgag ctctgagcc tggggctgcc actcctctgg gcgttctctg aggtcctggc 840  
agccatgtac agggaatctg agggctccct cgagagcatc tgcaactggg tgctcagggtg 900  
cttcccagtc aagctccgct gacatggctg gctgccccaa agtgccttca catttccagg 960  
gaggcttcag atggcagtg gtttgcagtt tgctcaggct ctggccagga agcctagcat 1020  
tctctaagca attagctcaa agccaaagaa tttcacatgg gccacctccg cctggcctta 1080  
tcagggtgaa catctactca cggtgctagg gccagggatg atatgaagga tcttttctat 1140  
agctttgtga gccatacttc tgggtttaca tttcaatTTT ttttaatttta attagcccag 1200  
agaaaagcatt tttttctatg agtgtcaatt tttctaaaca tgggtttgaa gcttataacc 1260  
agttttataa accccttgaa cactgcagtg agttatcaaa gccactgcct gcaaagtgga 1320  
tgatttaaga ttttacacgc atgaaaatga gtgtgccatc tcctgaccag tgccttttga 1380  
cttaggtacc cagatgccac ttgtcagcag caggatactt tttacaacac gaagcataat 1440  
tatttttagaa gaagagagta gaagggcaga atagaattca acttacagaa gcacggagta 1500  
gtgtgtgggt ggctgttatc tgtccccctg ggaggaggac tgTTTTgtc ctttgttttg 1560  
atgttaaaca gtagcttaaa ggctttcccc cccataccaa ctcacagcca aatgacaaag 1620  
aaccgtgggg tttcaacaga ttctacaaac atgcattttc ctttccact aatgggcact 1680  
gcagggaaag cccattggca tttgaccatg gagctgatgc agtgccaaag atgagctctt 1740

tcaactgatg gcatttttagc ccctgtggct cccagcggat cccccagccc gggctgcagg 1800  
ctgagccaag gctgtgcagg gtccatattg gtcaggccaa gtggagtgga agactctgtc 1860  
cacttatgtg gtgtcccttg ggactgaggg ggtttgttag cacatcaggc tattgctggg 1920  
aagcgtggcc tgcccagtga gcattgcctg tggacatcct gactgcttag ctgctccgct 1980  
gccacacata tgtggtcaaa acagaaacca atttcacact gccctgggaa aggaatgggt 2040  
ctgacctcca ggggaagctc taccatatct tgactggcag ggaaggctgg gagtggaagc 2100  
tatttatgga ctgatccaaa ggacatatgc atgagtaagg gtaaaaatga gcatgcaggt 2160  
ccacctgtgt tcttactctg ggtatctaga agagtcctca gctctcccta ctccacgctg 2220  
cctagacata cacagctgca ggtcttggct gaacaatcaa ggggccgcca gagaaaggcc 2280  
atctacgggt cgagtgatat ctggagttgc tgggccaag atagctctgt ggagttatca 2340  
ctagagatgc ctctggatta actaagaggt gtgcctgggt gtgggtgagg agtcagaacc 2400  
tttgagagct ttgagatgac agtttctatg gggcggaag aaggaggtgc atttctacaa 2460  
acacttcctt gaaatccttg ggaaaaacag aggcatggcc gtggccaact ctgtgggaac 2520  
tggcgcctct gtccttggtg gcaactgttct cagtccgatg acttgcatg tgttttctcc 2580  
aatTTTTgct gggattttta tgttcagcat ggtgggagga acccttgatt ctttttgttt 2640  
gagtatagaa agtaaatTTT tgaggtcatg atgtgaacgg ccatgttatt gtgattatct 2700  
tcagctcagg ataggctgag atgctttgtg gagtgttcca tgaagcccga gtcggaatct 2760  
ctgactgtcg tgtacagcca taaggagact ggtttgaatt actgtggcga gacagggcgt 2820  
gcctgtcaga aatctgagat gtttgtacgc tctgagatgt tgaacctttc tgggtgggcag 2880  
caccgacacc caggggtgga cccccgagga tgaatgcctc taggcctccg caacatatc 2940  
aagaatgaat gggagacgct agagtaaaat gggggcagag aggatatccg ggagcaagat 3000  
gcaaactgtg tgcattccact ctcgtaaaca agtagctggt cacaaccaga aaggttcac 3060  
tctcctaagc aaacagcgac tctttcagag gaagtttccc tctttcaatc gtggccttat 3120  
tttcaactcc ggtgccttct cgtgatgtta atcatttctt tttttccca cactaagctc 3180  
tcttttctat ctttctctct ctttccaatc ttacgccatg gccatcagtt catttcagcc 3240  
ttccagtgtc acaccactt cttggctgac acatttctgc tctaaggtga ctggttttct 3300  
tgccaatttt caaagagtgg tactaacccc caaccgctt tccgcacccc gtcctctccg 3360  
ccagcagtac tggttgcact aactgtgagt gtcttgcata ctgatggact catttggtgg 3420  
catggttggc taacagcatg gcggggggtg ttcagcttga gacccatgcc tgtgttcatt 3480

tcccatggag ctggcagcct ggtctacccc aagtgcacgc cccgcctctc ctctctccct 3540  
 tgggtctgcc tgcgtgcatg cttctccagt tgcgtctgcg aagctaccta ctttcttggg 3600  
 agggctcgacc ttgatcatga aacaatacca tgagggggcc tctgtcacct ttgaaaagaa 3660  
 cactttttga gcagcctcaa aaagctcata cataccagcg ctttcttaaa ttggctctaa 3720  
 tgtaaagatt gttaatgtca tttatcaaaa ccataggtga ttatttggag ggatttaaaa 3780  
 aacttaatta ctctcaggcc tcatcccaag cttgacacat gctctgtagg ttgaacacat 3840  
 aatcacaaat attctagcaa atgctgcctt gggtgcagcc tgcactgtag acccaagggt 3900  
 tttgctgtgg ctcttcttat ctcccttggc tcataaagcc ccagatgatg ccagagcttc 3960  
 aattagagcc atcatcatcc caggcagga tatctttgag aaatgactca gttcagcccc 4020  
 aggcccctgt gactctgctt aaagcacaca tttctgctga ctcttgtacc tggggcagca 4080  
 ggataatcac caacacactc ttaacgagaa acaacacacc aagcacagtg gagctgtcct 4140  
 aggcaacact cgcggtctca ggctgcggtg ggctgtctgc ctgcatgtgg ccagaccac 4200  
 cctgaccccc gggcctgcct gcctggccct gcatgctgca cgctcactgt atttgtgcag 4260  
 atcctggcca gtacaaagtc gttgctcttg tcttatcttc tcttacagag tctccctccc 4320  
 tttatagaat gtcaacaaa gagtgccttc ctccctctc agcctcctt ttagctagcc 4380  
 tccccatctc atcacaacgc atgtctgtga cctttggtaa tcatttacag tgccacacgg 4440  
 aaccctgtat ttgacacaca gcaaaacaaa caatgtttag ctttatttat ggtatttgat 4500  
 gctgtaaagt gaaataaata ttgttcttta t 4531

<210> 1516

<211> 3946

<212> DNA

<213> Homo sapiens

<400> 1516

atctgtttcc caaatcagag ttggtggaca gagcaacgac aatccagctg gagcgatggt 60  
 tcagggtatg tgttcaccca gccctttcgg gacgtcgcgt gcctgcactg tgggaacgca 120  
 agtggacagc cggtcctgc cgtgggcgct aggggccagt gctcagcgcg ggaatattcc 180

caccgccacg tgcgcgcgga cagcgggtac tctgaggagg ggcctgcagc ccggctgggg 240  
ctgggaagac ttcctggacg aggggcagcc cgggttttcc tcaaggatga gctggagtcg 300  
gccccggcg caggagcaag gtgccgggag agggccgagc tgggtgagag gcctgggcca 360  
gccaacagcg gccttcgagc agggaccgcg cagctccgtg tccccgcagt gggagggcgg 420  
cgggcagggg ccgggcgagt taggccgcaa gcatctgctg gggccgtcgc agcaccatcc 480  
cacagaccgc cactgaatca acagcagcca gttctccctg ggctctggag gccggaagtc 540  
caagagcaag catcgggatg ggtccctcct tggcctgcag gtggcggcct tctggctgcg 600  
tcctcccagg gccttccttc tgggcagcac acctggctgc tctgtgtcct gatccctct 660  
tctgaggaca ccaggcagat tggattgggg ccagatacct tccaagaggc agtcctggac 720  
aaaggcagca ggatatgccg ggctggcaga ggcaagggat cagtggacaa ccaaatggcc 780  
ttcaaacc aa cagaggatgg gtaaat ttgg atgcatggat ttgggggctt tatgaattta 840  
gacattttaa aatatgtatt aataagtaac agaaacttac ttctttaggc acaatattag 900  
aaatattgga agtatattag aagttattaa accaactgga gatcttttta gccaatgttt 960  
taaacacatt tatgactaga gcaaaaactt actttcaaaa tattgtgata gttgtatgtc 1020  
gacataactt aggaaaattg cacacatttt tatcttatgt agtttaaaac tattcttctg 1080  
tgaagagggtg cataagtttc acccgattgc caaagagtcc atggctcaaa aaagggttaag 1140  
aatccctgtt taaccaaagc cacggatgag atgaggtgga gtccaaggag aggaaactaa 1200  
agactcattt taccctctag taataagacg tttgggggct aggacttcag aaaagttcaa 1260  
ctgctctgga gcaactggaa agttcagggc ttcaaaatat aatacaggta aagaaaagca 1320  
aagtattggt attcttctga tgacaaatgt tctttgattt tcatcatcct tctgaacaca 1380  
agtcacaagt ttgaaaacct gtataatgct gatcatctca agtaccctct tccttcaatc 1440  
ttgggtgtgt ttatttgaaa cctaacaatg tgtgcaaaac caggagaagg ctggggagtg 1500  
agggattttg ccaaagtcac acaagtgtgt gtgctgtttt tgctccaagc tgattagatg 1560  
cttctattgt tatgtatcaa gacatctcag ggtgtggttg ccctaaagga gacagtgagg 1620  
caagaagggtg acggcatttg tagttaccag ccaccctcct gctcttttag gatgtttgtg 1680  
tatacacacc ctaatgccag cacatgagga tgtggagacc agggccagga ggaatccatc 1740  
ctcacaacaa ctgaagaacc cagttatccg tgtgctgac cacacgctgc cggcaaagcc 1800  
tgtagctggc aggcacatg ccacatttct ctcccaaagc aaccctataa acgtaatcct 1860  
tgaacagggc cttctcattt ccagcagctc tttcataatt ttgtgctttc tactttttga 1920

aatgttgtct tggctcatcc cacttgaacc tacagccgtc agcttcttta ataggggtgt 1980  
ctataaagaa ctgccctaaa atatgctttt ccagtgcact taatgtcttt ccaattacat 2040  
ccagatgtga aaagctgaag gaacagttct caggactgga caagatgaca taaatcttgc 2100  
agctgacaga gatcccactg agctcagttg gggaaactca cagagaactt gtttggggcc 2160  
agaaaagcgg ctgggtataa agacagatgt gtacactcgg attcaaaaaa atatgttaag 2220  
agagagaaaag cattcctcta acacagtgcc tacaatacgc gctgaggcat gaagcaggct 2280  
gggctacca cccccgcaa ctagatcaaa ggaggtgatt gaaaaggctt tggagagagc 2340  
agaccaactc agcgatgctt cctgggtctcc ttaattgtc tttctcagggt gaggaagggtg 2400  
ggcactcctg acagaccttg ctggaggaga acaagggtg tttgtgcagc tgaggacttg 2460  
gcttttattt ttttaatgat taggttttgt acactttcca gaatgttcct tttaaaaata 2520  
gtatatctct cttctctctc tccagatgct aggaagtgc ggttcaacc aaaccgtgtc 2580  
tatttcaaag ggacacaaaa acccagagct ggagttaaag gagcttggcg gcatgctgcc 2640  
caaggactga aggctttgggt tttcttttac ctcccaagt aattttgttt ttgaaggttg 2700  
gaaaacaaat tccacagaag gatcagcttc tgcaggatac agcctggagc aaggcagagc 2760  
aaggagctgg gtgcagggt gagccaggac cagggcagac atggtctctc agacaggtgc 2820  
cgccctagac agacagctcc tgatgcatcc aggggctcgc tttctagtat ttcaggttcc 2880  
caggggagga actgagggtt ttttttttc tctcaagagg ctccctcaa ttatccactg 2940  
cctcttctct aactctctc tctctctctc cctatcatga caccggctc tgtgacagag 3000  
gacagagggg ctctgctgca cacttgctct gaggaggctc aaagggccca tttgcagcac 3060  
ctggtcaggg cactcttgc aaacctgcc tgggccagc ccaccagtg ctggagaagc 3120  
cctgtcctcc ttggctgaga ctttttgctt ttcctgccat gcatccacg gaaggcctga 3180  
tgatggtgca tttcattgac aattttatga ccctggccat tccccctgt aacaatatct 3240  
ttaaaatggc tccttgtctt caggtgggtg agagcagggc tgtgtcttc cctctccttc 3300  
ctgtcactaa acgtctgtgc cttagcaat aacactgaag tagtagaatg tgagttctgg 3360  
atcacagaac tgcacacata actttgacca cttttgttcc catcctgaga taaaagccaa 3420  
aacgtatttt ttaaatttat gttttacatc ttttagttgg gcattgcttt tctgagtga 3480  
ttctaagtat tgtaaagatg tcttcgaaga cagacaacct cgactctaaa gaaattaatg 3540  
caaattacag tgtatctcag tgacatgcta atttatagca ccgtaaaggt acagttcaaa 3600  
gctccaacga gccagaagaa agtcgggtgga ttgatggttt gcagtaagaa aggttttagaa 3660

acaataaaat gtaactagga ttttagtttg gaaatgaact aggggtccat ttgttccacg 3720  
ttactgagtt ttttaatttag atctgctgtt aaaacctaata gcattttgta tttgtggcta 3780  
gtaaatgact ctgactcggg gtcttcaagg agacattgaa aaagaacagg aacaattctc 3840  
aaagataaga cttgtagctg caggtttctt aacaaaaaat ataattctta gatctcacct 3900  
ctaaaatgtg attacaaagc agaaaagtaa aatgaaacaa agaaac 3946

<210> 1517

<211> 3829

<212> DNA

<213> Homo sapiens

<400> 1517

tcaacaacac attaaagttg ggggtgcagtg tcccagggtc actcaaccct tcccgttttc 60  
ttgtctgtgt gtgtctactt tgctctgttc cctgggtggca gcggcgggtg caatgttggt 120  
gcatgggcct cctaggacaa ggggaaagtg agtatgccct tttcttgctt cctgccaggc 180  
atctgcagcc tggcgcaagc tctggccagg tcttcaagca aggtacctgg agatgttctt 240  
ttccaatttc tggattggta acttgaggca aattctgggc actagagtca ggactaagat 300  
gagacttgaa tcaggggagt ctggggctct gagaggcaga ggcctgaaac catctagagc 360  
atgtggggag ctgggtgtgt gttcaggcca gttgcctttc tctgtgcttc aatgttccag 420  
gtacctttgg agggactgag atcctaggga ttgctggagc ctggctgcat ggcctggcca 480  
ccctgatgcc cttgcgttct ccgtgacagg acagcaaggc tgaggagaat ggctcccaca 540  
gcttcatgca ctccatggac ccacagctgg agcggcaaata ggaaaccacc cagaacctgg 600  
tggaactccta catggccatt gtcaacaaga ccgtgtggaa cctcatgggt ggtgcgaagc 660  
ccaagaccat catgcacatc atgatctaca atgtgcatgc accgcctcat ggggaccaag 720  
gagttcatct tctcggagct gctgtccaac ctgcgctcgc gtgggaacga gaagacactc 780  
atggaggagt cggcagagca ggcacagcgg cgcgacgaga tgctgcttct cagagctgct 840  
gtccaacctg cactcgcgtg ggaaccagaa gacactcgtg gaggagtcgg cagagcaggc 900  
acagcggcgc gacgagactc gcgtgggaag aaatagacac tcctggagga gtcggcagag 960

caggcacagc ggcgcgacga gactcgcgtg ggaacgagaa gacactcctg gaggcgtcgg 1020  
cagagcaggc agaccaagga gttcatcttc tcggagctgc tgtccaacct gactcgcgt 1080  
agggacaaga agacactcct gcaggagtcg gcggagcagg cagaccgagg agttcatctt 1140  
ctcagagctg ctgtccaacc tgcactcgcg tgggaacgag aagacactcc tggaggagtc 1200  
ggcggagcag gcacagcggc gcgacgagac tcgcgtggga agaaatagac actcctggag 1260  
gagtcggcgg agcaggcaga ccaaggagtt catcttctca gagctgctgt ccaacctgca 1320  
ctcgcgtggg aacgagaaga cactcgtgga ggagtcggca gagcaggcac agcggcgcga 1380  
cgagactcgc gtgggaagaa atagacactc ctggaggagt cggcagagca ggcagaccaa 1440  
ggagttcatc tcggagctgc tgtccaacct gactcacgt agggacaaga agacactcct 1500  
ggaggagtgc gcggagcagg catagcggcg cgacgagatg ctgcacatgc accacgtgct 1560  
gaaagaggct ctcagcatca tcggcgacat caacacgaac accgtcagca cagctacggg 1620  
ggcccgtgga cgacgcctag ctgcagaaat tcaaatttat tcagctgaac tagcattttg 1680  
aaattccatg tttctgatga actetaacct tccttctaag caaatcgaag gctgcattat 1740  
actgaatgag gaagagcaca aatacttggc tcaatgaggt atcgcaaaag actgtatgca 1800  
ctttgaagaa agacaaccaa gccagcaaa agaattggcat acgggagttg ctgcacaagc 1860  
ctgggtgctc cacgctgtca gtgtggctca cctcaciaaag atctttggag agaaggaggt 1920  
ggggatccta gtgcagttag agcctccct gccctgcct gccaccctg cctgaggact 1980  
ctactacca ccatgcttgt cagcaccac aagctcctgg ggggctgggg ctcttgacc 2040  
aggctcatca gcaagcttca gggcagtggc cggaatttg ctgtgtccct cgtttagtc 2100  
accacaagcc gcaacatctt ctccagcagc tccagcagct tcacctggag ggagggtgc 2160  
tcagctgtta tgcactacc ggcgccacc ctacgcca cccccccc tgcagagatg 2220  
ttgcacacc taccttcatc tctccatgt cctgggccag cctgatgatg tctcctcca 2280  
gttgccgat ctttggcact gcccctggc tgtgttctag ggtgatgaac tttcctgcag 2340  
gaggacaggg ctcagacgct gaggtccct cgacggcct gcagctccc ctgccgtgcc 2400  
ctggcctccc actaactgat gacttctgtc tttccagtac tggatgaatc gaagtctag 2460  
tttctccgt cgctccctca ggtccacct ctctccagg aggtccataa ggccactctg 2520  
gagccaaaat aatggggtca catctcggca gcaacacca cccctgccct tcttgccca 2580  
tgccaggact cagtcacctc cagcttctcc atgacctct gcattggccg gtgggtctcc 2640  
ccactcacag actggcccct agtcactggg gctgggaccg ctgcctctgg cttctgctgg 2700

gccgaggcca ccaggtgagc catgcgctgg cagcacaccc tctgctcttt cacctgctct 2760  
cataaccgtg cctgctcctc ctgggcattg gctccagcgg agttgaaaaa tgcaacctga 2820  
gggcaagagg tgagcattct tgtaggggca tacacagaac gaacggggca gggaggtgga 2880  
gtgcagcctc ttcccttggg gcctcagaga gtgcatctgt tggtcacagg tgaaatggtg 2940  
tctgaccact ggctcctgga agggatgagg gtccagagaa atcagaaggc agggaaacca 3000  
agagcataaa ggggtcttgg agggaccaca gaggaagggt gcaaaatggg tacaggggga 3060  
gtcaggctca ccgtggcctc ccagctctcc aggtcctccg ggttgcttgg catgggccga 3120  
ggtgcctcct cctcactgtg taacactgag ccagccacta cccagagagc agctgctgtt 3180  
ctttattttt acttttaaga accaagatca ggcatagtcc cactaccagt cgatgtggga 3240  
gttctgaccc gctccctttc tgacctgggc cagttcagcc atccttaggc aacttggtgg 3300  
ccccccgctc ccaggaggac atcatattga tgccaaactt agtgcgggca cccggtcggc 3360  
atagggacca gctgttctaa aggtctcttc caacctttgc ctttttcttt gctgcgccca 3420  
atttgctctg ttgagtttct tctgccattg cgggggtgggg agggaggcgg ggttggggcc 3480  
acgtgagcaa aatcccagtg agcactgatg aacacctcca cttgcctacc aggcagctgt 3540  
gtgactgagc ccgaggaggc ataactaggg ccccataga atgcagaaca ggggcgtggc 3600  
cttaatgctc caagcccatt ggtcaatgac aaagatgaga gggaaagggg gtgtggccag 3660  
gcagcagtat gtccagaggg acctgtggct cacaaggaaa gctgtccatg caactgctgt 3720  
ccccgcctac tctgagggga ggggccgcc cctctgggaa aggggagggg ccggcttttg 3780  
ctttaaaagc tttaaaactt taaaaaatat atgtgtgtat actttatgt 3829

<210> 1518

<211> 4281

<212> DNA

<213> Homo sapiens

<400> 1518

ccagtaaaaa cttctgttat aatcccttta gtcctctttt tttcagtttt tatgaagaac 60  
agtttgtcag catcttcatt tatgcaggac aatgtaattt gaccagctct ccatcgaagg 120

caagagatta taagaaggaa ggagataaaa atgatgcaag ttgttttgaa cttccttatg 180  
tgctagataa tatggataac atgaaagatg ccacatacat tattccgtag taaataggca 240  
ttatcttaag tagtcattgt ttttaagtaa cctaccaggt cacatatcta agccccgttt 300  
ttcactgatt gacttaattc tgtttttcct cgtaagatct ttacatgtt gtaaaggttt 360  
gtttttttgg ttattgtttt ttaaatagcc ccacatgggt atccatttat attatgattt 420  
tgtaattcag gtttagttta tgggtgtcct ttatcacttg ttttgtcat gcttgtgtct 480  
gtgctcatct tgtatgtggg ggcagaacgc aacagttgtc cttttgaat ttacttttg 540  
ttttgtaaaa acctaaatg caaagttcct ttgttatgct ttcttaattg tgttgacata 600  
aggttgtggg ttttgttttc aagatttcct tgatagctgc cgtgccagta ctctattggc 660  
tgagctcgat gatgatgagg acttacctga gccagatgaa gaagatgatg agaatagaaga 720  
tgacaatcag gaggaccaag aatacgagga gattctgaga cgcccatccc tgcaacgtcg 780  
agctggctcc cgctctgatg taacgcatca tgctgttacc tcgcagctac cacaggtacc 840  
tgctggagca gggagccgac ctattgggga gcaggaagaa gaagagtacg aaactaaagg 900  
aggacgccgg agaacatggg atgatgatta tgtgctaaag agacagtttt ctgcattggg 960  
tcctgctttt gacctagac ctggctgtac taatgtccag cagacaactg atctagaat 1020  
accaccccca gggaccctc attcagagct cttggaagaa gtcgaatgta ctccgtcacc 1080  
tcgattagct ctcactttga aagtaacagg tcttggaacg actcgtgaag ttgaattacc 1140  
actaccaat ttcagatcaa ccatctttta ctatgtacaa aaattgcttc aattgtcctg 1200  
taatggcaat gtgaaatcag ataaacttag gcgtatttgg gagcccat acacaatcat 1260  
gtacagagaa atgaaggatt ctgataaaga aaaggaaaat ggaaaaatgg gttgctggtc 1320  
tatagagcat gtggagcagt accttggcac tgatgaatta ccaaagaatg acttgataac 1380  
ctacctgcag aagaatgcag acgctgcttt cctgcgccac tggaaattaa ctggcactaa 1440  
taaaagtatt aggaaaaaca gaaattgttc tcagctcata gctgcatata aggatttttg 1500  
tgagcatgga acaaagtctg ggttaaacca gggggccatt tctactcttc aaagtagtga 1560  
tattcttaat ttaacaaaag aacaacctca ggccaaagca ggcaatggac agaactcttg 1620  
tgagtagaa gatgtccttc agcttctgcg tattctatat atagttgcaa gtgaccctta 1680  
ttcaagaata tcccaggaag atgggtgatga acagcctcag ttacttttc caccagatga 1740  
attcactagc aaaaaaatta caacaaaaat attacagcag attgaggaac cattggcact 1800  
ggcaagtggg gctctgccag actggtgtga acaattaacc agcaaattgc cttttctaat 1860

accatttgaa actagacagc tttatttcac atgtacagca tttggcgccct caagagcaat 1920  
agtatggtta cagaaccgac gtgaagccac tgtggagcga acgagaacca caagcagtgt 1980  
taggcgagat gaccctggag agtttcgagt tggctcgtctc aagcatgaaa gagtaaaagt 2040  
tccacgtggc gagtcactga tggaatgggc tgagaatgtc atgcaaatac atgcagatcg 2100  
gaaatcagtt cttgaggttg aatTTTTtagg agaagaagga actggcttgg gaccacatt 2160  
agagttttat gctctggttg cagcagaatt ccagagaact gacttgggag cttggctttg 2220  
tgatgataat tttccagatg atgaatctcg tcacgttgat cttggaggtg gattgaaacc 2280  
tcctggatat tatgtgcaga ggtcatgtgg actgttcaca gcaccatttc cacaggatag 2340  
tgatgagctt gaaaggatca cgaaactgtt tcatttcctt ggaattttct tggccaaatg 2400  
cattcaagac aatagacttg tggacttacc tatttctaaa ccttttttta aacttatgtg 2460  
tatgggtgac attaaaagca atatgagtaa actgatttat gagtcacgag gtgatagaga 2520  
cttacctgt actgaaagtc agtctgaagc ttctacagaa gaaggtcatg attcactctc 2580  
ggtaggaagc cttgaagagg attcaaaatc agaatttatt cttgatcccc ctaaaccaaa 2640  
acccccagct tggtttaatg gaattttgac ttgggaagac tttgaattag taaaccaca 2700  
cagagccaga tttttaaaag aaattaaaga ccttgctatc aagaggcgcc aaattttaag 2760  
caacaaaggt ctttctgaag atgagaagaa cacaaaatta caggaactag tgctgaagaa 2820  
tccatcaggt tctgggcctc cacttagcat agaggattta ggtttaaatt tccagttttg 2880  
cccttcctca agaatatatg gttttacagc tgtggatctc aagccaagtg gtgaagatga 2940  
gatgataaca atggataatg cagaagaata tgtggatttg atgtttgact tttgtatgca 3000  
tacgggtatt cagaaacaaa tggaagcctt tagagatggg tttataaaag tttttccaat 3060  
ggagaaatta agttccttca gccatgaaga agtccaaatg attctttgtg gaaaccagtc 3120  
accatcctgg gcagcagagg atattatcaa ttacactgaa cctaagctgg gttatacacg 3180  
tgacagccct ggtttcctga ggtttgtgag ggttttatgt ggcatgtctt ctgatgaaag 3240  
gaaagcattc ttgcagttta ccaactggtt ttcaactcta ccccaggtg gactggctaa 3300  
cctgcatccc aggctcacgg ttgtacgcaa ggttgatgct actgatgcaa gctatccatc 3360  
agtcaatata tgtgtgcatt accttaagtt gcctgaatat tcttccgagg agatcatgag 3420  
agagcgctg ctagctgcta caatggagaa aggctttcat ctcaattgag ctttgaagtg 3480  
caatgggaga catcagagac tttaaaaata ctagtgaagc ctcttggtgtt tgtgtgcaga 3540  
gaagtatatg atccacatg ctaatgacac ttgccttttt ttccaccatt aaggcttta 3600

gaacatgtgg aataagtttt ttagctgcta atgacaaaac aaatcctgta actaccagc 3660  
 cagcaagtat atagcacaga acactgtgtt actttacaag ggcttatgtg actggaataa 3720  
 ggtgggtccca cttgactgtt ccaaagagca gcttctcaga tcttcagtgt tcaactggtaa 3780  
 atttctaaca gtgtatttgt gtaaagtttg tcatttcata ctccatacac tacagttgct 3840  
 gtcactgac cctgttttgc tggcttttaa gctacttggc caaaaatcct gcttccttaa 3900  
 aacatagaga attaatgagc atctcaagct ttttcttttc ctttttaatg atgcctgcac 3960  
 tatcaagagt attctagtgt tctctctttg tttggcatat aatcatgcac caaacttttt 4020  
 atttctttta ggtgggagta tattttttatt tcctaaatgc catactatga agatcaaagt 4080  
 cttaagtgtg tttgcagctc aaaaataaag atgtattaag gggggaaaac ctggtctaa 4140  
 tgcaaggcac acttacagcg agttttactt tcggttgat tttctttgta tattataaac 4200  
 atttatttaa cttgttgccg tttgaagtaa aaaatttcca aaatgtatgc tcaacaataa 4260  
 tcattaaaat gtttgcagcg t 4281

<210> 1519

<211> 3612

<212> DNA

<213> Homo sapiens

<400> 1519

tttttccctt ccggcggcct ctccgggccc agaagctcct caagtcggcc tctccagacc 60  
 cacttgcagc ctcccgggtat cctctccggg cccagctctt cctcccggct gcgtctgcag 120  
 gcccgaactcc tgccctccaa caacctcttt ggactcagt cctgctcagc tcttggtggc 180  
 cttggtcggc ccacagcttc ctgaagccaa gctccccagg cccagctcgg gcctcatggt 240  
 ggctctcctt ggctcagctc ctgccctccg acggcgtctc caggccccaa atggcctcgg 300  
 gtcggtgggc ttctccaggc ccagcttggg cctcccggcg gcctctgcag gctcaagtgg 360  
 tctgaagtc agcctctcca ggcccagctc cggcctccca gcaagcaagc tcttttggct 420  
 cagctcctgc ccagctcccg ccggcttttg tagaccctga actttctcca gcgatgctcc 480  
 tcagtccac ctgcctcccg gtggcctgta caggcccagg tctggctgga gaacagcctc 540

tcaggcccca ctcttgccctc ctaggggcat ctccaggccc agctctggcc tcacggcggc 600  
ctcccgggac caagtccttg cctgcctccc agcagcctgt gtgcggccca gctcctccgt 660  
cacggtggcc tgttcaggcc caactcatgc ctctggcacc ctttcgagag gcgtgagccc 720  
ctgcctcaca ttggcctctc tcacgtgag ggagttcagc gtgggcccct gtctcacact 780  
ggcctctctc acgtgaggg aggtcagcat gagcccctgc ctcacactgg tctctctcac 840  
gctgagagca atcctccctc acgtggcct gttgagaccc agctcatgcc tctgttggcc 900  
tttccaggcc cagcccctgc ctgttggcgg cctctagatg tccagcctct acctcaacag 960  
tgggcccctc acgcccacct cttgcctggc cgtggcctct tcgggcccagg ctcccgccctt 1020  
ggggcagccc ccgcaggccc agctcctgcc tcacggccct ccggaggcca agctcatgcg 1080  
tcagggcagc ctctcccagc ctggcgtttg ctcttttgca tgggctccag gccctggact 1140  
tcctccagtc ggctcttcca ggcccagctc ttctcccgg cagcctctgc aggaccagac 1200  
tgtcgtcaag taggcctgtc caggacagc tccttcctcc cggcggcctc tgtaggcccc 1260  
gactgtcatc aagtaggcct gtccaaggac agctcctgcc tcccgggtggc ctctgttggc 1320  
ccaagtcgtc ctcaagtctg cctccccagg cccagctctg gcctctcggc ggctcttcca 1380  
ggtgcaaaag ttctcagat ccgtctctcc aggtcagct cctcctgtct cccagtggcc 1440  
tctttcagcc cagcccagct catgcctccc ggtggccttc ccaggccctg cttttgactt 1500  
tccgcggcct ctgcaggccc cgaacttgac caccagtcgg cctctccagg cctggcctcc 1560  
tgctgttga cagccactag agggccagcc tctacctcaa cagtgtgccc tccaggcccc 1620  
cctcttgctt cgccgtggcc tctcggggcc aggtcccccac ctccgggacgg cctccgcagg 1680  
cccagctcct gcctcacgga ggccctctag aggccaagct catgcgtcgt ggcggcctct 1740  
cccggcctgg cgtttgctcc tttgcatggg ctccaggctc tgcactccct ccagtcggcc 1800  
tctccaggcc cagctcttcc tcccggcagc ctctgcagga ccagactgtc gtcaagtagg 1860  
cctgtccagg gacagctcct gcttcccggc ggccctctgta ggcccagact gtcacaaagt 1920  
aggcctgtcc agggacagct cctgcctctc ggtggcctct gcaggcccaa atcactctcc 1980  
ccaggcccag ctccggcctc tcggcggcct ctccaggctgc aaaagtttga atcagtatct 2040  
ccaggcccag gtctctctgt ctcccagtg cctcttttgg cccagcccag ttcatgcctc 2100  
ctggcggcct tcccaggccc cacttttgac tttccgcggc ctctgcagat tccgaacttg 2160  
acctccagtc ggctctctct ggcccggcct cctgccttcc gaaggcctgc acaggcccag 2220  
tctctgcctc acagcggact ctccacgccc agctagctct cgcctcactg cagcctcccg 2280

agtccaaagc tcctgcctct tggccgcttc ggcaggccca gctcccacct gccagtggcc 2340  
tcttctggcc catggggttc attccacaca acggcctttc caggcccatt ttttccttc 2400  
cgactgcctc tcaggacca gaacctctgg gccacttga ggagatgcag ccgggaggaa 2460  
cagctgggct tgcagaggct gccatgcggg aggcagaggc tgggcctcct gaagtcggcc 2520  
tctccagacc cacttgaga ctcccggcat cctctctggg ctcagctctt cctcccggct 2580  
gcgtctccag gcccactcc ggctcccaa caacctcttt ggactcagct cccgcccagc 2640  
tcccgggtggc cctggttggc ccacaacttc ctgaagccaa gctccccagc cccagctcag 2700  
gcctcacggt ggctctcca ggctcagctc ctgccctctg acagcgtctc caggccccga 2760  
acggcctcca gtcggtggat tcctctatgc ccagcttggg cctcccggca gcctctgctg 2820  
gccccaatcg tcctgaagtc gccctctcca ggcccagctc cggcctcccg gcagcctctc 2880  
caggcgcaac gcgtcgtcaa cgaggggccc tccgggggtca gtcctgcct ctcacagcc 2940  
tctagaggcc agtctggcgg cctctgcagg cccagactgc ccttgagtca ggctctccag 3000  
ggccagctcc agcctcttg cagactctgc aggcccaagt cgtcctcaag tcggcctgga 3060  
agtgggcctg gaagagctgc attttggcct cccggggccc agtccgtcc tctcggcggc 3120  
ctctccaggt gcaaaacttc ctcgagtcag cctctccagg tccagctcct cctgcctccc 3180  
agtggcctct ttcagcccag cccagctcgt ggctgtaggc agccttccca ggccctgctt 3240  
ttgacttttg gcggcctctt caggcccaga acttgatctc cagtcagctt ttgcaggccc 3300  
ggcatcctgc ctcccgaagg cctgcacggg cccggcctcg gaatcacagc agactctcca 3360  
cgcccagcta gctctgcct cactgtggcc tcccagctcc aaagctcctg ctttctggcc 3420  
gcttcggcag gccagctcc cgcctgccag tggcctcttt aggcccagct cattcctcac 3480  
attggccttt ccaggccccg tttttccctt ccggcagcct cttggcctct aatttttttt 3540  
atcttttgtg tataaatccc aaaatatgga attttggaa atttccacca ttatataaat 3600  
attttgtag gt 3612

<210> 1520

<211> 4129

<212> DNA

<213> Homo sapiens

&lt;400&gt; 1520

gactctgctg cttttcctgg gcagggcctg cttgctccag ctctcaagtc tgacttgc	60
ctacactgcg ggcaagatgc ggctgcaaga ccgcatcgcc acgtttcttct tcccaaaagg	120
catgatgctc accacggctg cgctgatgct cttctttctta cacctgggca tcttcatcag	180
agacgtgcac aactttctgca tcacctacca ctatgaccac atgagctttc actacacggt	240
cgtcctgatg gtaggctcag ggcagggacg caagggctgg ctgtgggaga cccgaggggc	300
tgatggaaac cccactgttg tgcgaggggg ccactctccc actggatggg cctacagttc	360
tcccaggtga tcagcatctg ctgggctgcc atggggtcac tctatgctga gatgacagaa	420
aacaagtacg tctgtttctc cgccctgacc atcctgagtg agtggcagga gtgggagggt	480
gcaagaggga gcggggagct ttggaacct gagatgtggc aaggagtagc cagggaaggg	540
tactggggct catggggggc tctgtcccc gccagtgct caacggagcc atgttcttca	600
accgcctgtc cttggagttt ctggccatcg agtaccggga ggagcaccac tgaggcctgg	660
ggagtcggaa cagggtcaag gagggggaag caaaaggctg cctcgggtgt tttataaag	720
ttgttgttta tttccacctg ccagctcctt catggggcga ggggtcggag gctggagacc	780
cgggaggaaa gcaggtcaag acaaattgctt gaccacggg gactccaggc ctggcctgca	840
gccactctgg tggacttggc tttgggtctg gggctcttagt gtcttaggct tgaggagag	900
gggcagtga gaggtgccct cagcctcccc attacccgc ctctcctcca cagaaccac	960
atcctaggct ggcctagcca caagcaaggg ggctcaggag gggcccacgc ggatgtgagg	1020
gttcatgagt ggggtccaggt tgggatcgct gtcagctgcg gcccggccta ggcgagacat	1080
gagggcaagg agggccagga agcccagcag tccaagagt agcagcagcc ccgcccgtg	1140
gagcagggtc agcggccgct tccgagacct agcccggctc ctggggggat gaggggaaaa	1200
tcaggtcagg ccccagtccc tgggtggcccc cgcggttgga gagaagccct ggtcaccacc	1260
cattcctgag cctccatctc ctctgtctgtg cctcagggat gatcactcct gcacctgcca	1320
ccatagggcg ttattgtgca gctcaaacca gctgaggcgc acgactgtat tctggaaacc	1380
acagtgtgtc agacgtcggg gagaattaca aagattaggg ggtgtcagat cgggaagggg	1440
cctcaaagag cctgagttca aacctctgt gtaggaggca tagagacagt ccagagaga	1500
agcaaaacac agctttctgt gcacagccaa ggctctctg cacagcccca gcaccaggta	1560
ctgttactcc ccagaacgag ccccttttgt catgaaacca tcccttcag gacctctggc	1620

tcccatcccc tctccacccc ttcctggcat tccgccctgc ctgaccctgt gtaccttagc 1680  
agccggggcca gccaacccaa ggccggccga cgtcggtact tgtcatcgtc acagtctcca 1740  
tggaggcctg gtgtccggtc atcatcccg cgtatcataca ccttcctagg ggctacaggg 1800  
tggagccact agcatcaata gactcaggaa aactggccgc tttggggagg gctaggggga 1860  
tcacctgctc tcctcagtct gacagaacat ctcagaattg tgaggaggta atggctgtgc 1920  
ctggattaag gaaaggttcc tccgggtggg tctctggatc ctcaagctcc ccctatacga 1980  
accattccac cctcttccta tccttctgcg gcctggataa ctcccaggct caccgtgagt 2040  
caagggctca ggattgcccc tgttgatcac tgtgtgctgc tcgggccggc ctgggggaagc 2100  
tgggggccgg ggggcctggc tgtagaaggc tggggtagca gaggcgctgt ctacctctc 2160  
tgggtccagg gtactgctgg ctgtgggtgg aaagagagcc gtcagcagaa gcagtgcata 2220  
gagctcagg gttagagcatg tgactgcaga ccaaggagc tgtcagcaga gcaggaggc 2280  
taaagcccaa acagtcggtg gaagccacca cttaccatta aaactagacc agtcagagaa 2340  
gtcagacgtg ttgaggggct cgggctctgg gctcaccacc tcatcgatct ggaggaagga 2400  
atctgggtca ccaggctgcc tagtattgtc cccaccacc catctgactc aggtggggcc 2460  
cagggcagat agatggtcag acagacgagg gactctcacc agagggaggc ccagtcctgc 2520  
ccggggcccag ttgactgtgg ccagcttctc tctcagtgcg gaggccacgg ggccagccag 2580  
gttgggtggg gggaagatgg ggccattgca gctggggcac tgatagccgg caggtgccgt 2640  
gtttcggggt agctgggcag cacgttcatt gaggcaggcc cagtgaaga gatcttaggg 2700  
cccatgagac aggggagaag agacatgagg aagaagacac ttagggctcc tagcctagca 2760  
atagtcacca gaccattgca ggacatatgg acacatgtgt gtgtgccaga gccttctcct 2820  
ccccgtcctg ttcctaaaaa tgtcagtctt cttggctacc accatctaag tccaggcagg 2880  
tgctaccaag ctgtccagct cacaggggta agtttgggta ggaagaaaac gccacctccc 2940  
ctttcagtcc tttcaatgag tcctctctgg gcctgcactc atcatattct ttgggctaata 3000  
ggctaataat gaacagtttc agaaaagggt cctcgataca cacacaggca cacatataca 3060  
tgtacacatc cctgggcaca aatgtacatg tccttataag cacataatca aacacaagtg 3120  
gcattcccta tatctacact atgggtacag gagccctcac acatacacat ctatacactc 3180  
acaggtttgc taacaggcac cctcaaccat gcattctctt gcactccac aacacacctg 3240  
tgttcatatg ttcacataca tacatttacc cattcattca cccaagtac agatcaacac 3300  
actaacactc atttaaacac acaatgtaca ttaagtgcct gcaagtacac acatgcactc 3360

acaaggagaa acacatatgg agctgactct tgcattgagct ccttcaaaaa ctggagctaa 3420  
 ggctcttacc ccagattcag gtcaaagtca tgacacatat gtctgctgac ttcttttagc 3480  
 taactttaat gtgggaaact cacttcctct ctgttttagcc ttggaatcag tgggtggatcc 3540  
 tgaatatctg aaagcaacat gccggtctgg ctagctaata gtcacggcca ccagcatacc 3600  
 cgtaagcttg actggttctc gctgaaacct ccagattggc agggcttaat ttttaggaaa 3660  
 gaggaactag gagctttaat ttttaggaaa gacagtgagg cctagaaagg aagaataact 3720  
 tgccatgaact tacacagcag gtaaggaact ttaacaggac tagaatctgg gctctgagac 3780  
 tcgggggact cactgtcctg ctgcttgagg agggcctgga aaccagtcac caagctggcc 3840  
 cctgaggctg gcctgatccc cccgaggtgc caaggcctca ccatagcaga caaggcgggt 3900  
 cgtctctcgg ctggccaggg gtatgttgca caggcggcaa ttgggggtgt agtcgctatc 3960  
 ttggagccat tgcaggtagg actggacgat gcactggagt gggagagaga tgtcacaact 4020  
 ggtgctgggg ctgctcggcc taccaccca aggtccgact gtctcttttt ctctagccac 4080  
 agaggagact catcctttcg ttgttttaac caataaatat ttattgagc 4129

<210> 1521

<211> 3645

<212> DNA

<213> Homo sapiens

<400> 1521

agtttgaggc caacactagg aagtgtctgg aaccggatcc ggaggcttca caatctatat 60  
 gttgcctcca aaggacctgc agagaaacgc ctctgattt tgtcttaca tggaacttaa 120  
 aaagtcgcct gacgggtggat ggggctgggt gattgtgttt gtctccttcc ttactcagtt 180  
 tttgtgttac ggatccccac tagctgttgg agtcctgtac atagaatggc tggatgcctt 240  
 tggatgaagga aaaggaaaaa cagcctgggt tggatccctg gcaagtggag ttggcttgct 300  
 tgcaagtcct gtctgcagtc tctgtgtctc atcttttga gcaagacctg tcacaatctt 360  
 cagtggcttc atggtggctg gaggcctgat gttgagcagt tttgctcca atatctactt 420  
 tctgtttttt tcctatggca ttgtttagg tcttggatgt gggtttattat aactgcaac 480

agtgaccatt acgtgccagt attttgacga tcgccgaggc ctagcgcttg gcctgatttc 540  
aacaggttca agcgttggcc ttttcatata tgctgctctg cagaggatgc tggttgagtt 600  
ctatggactg gatggatgct tgctgattgt ggggtgcttta gctttaaata tattagcctg 660  
tggcagtctg atgagacccc tccaatcttc tgattgtcct ttgcctaaaa aaatagctcc 720  
agaagatcta ccagataaat actccattta caatgaaaaa ggaaagaatc tggaagaaaa 780  
cataaacatt cttgacaaga gctacagtag tgaggaaaaa tgcaggatca cgttagccaa 840  
tggtgactgg aaacaagaca gcctacttca taaaaacccc acagtgcac acacaaaaga 900  
gcctgaaacg tacaaaaaga aagttgcaga acagacatat ttttgcaaac agcttgccaa 960  
gaggaagtgg cagttatata aaaactactg tggtgaaact gtggctcttt ttaaaaacaa 1020  
agtattttca gcccttttca ttgctatctt actctttgac atcggagggt ttccaccttc 1080  
attacttatg gaagatgtag caagaagttc aaacgtgaaa gaagaagagt ttattatgcc 1140  
acttatttcc attataggca ttatgacagc agttggtaaa ctgcttttag ggatactggc 1200  
tgacttcaag tggattaata ccttgtatct ttatgttgct acctaatca tcatgggcct 1260  
agccttgtgt gcaattccat ttgccaaaag ctatgtcaca ttggcgttgc tttctgggat 1320  
cctaggggtt cttactggta attgggccat ctttccatat gtgaccacga agactgtggg 1380  
aattgaaaaa ttagcccatg cctatgggat attaatgttc tttgctggac ttggaaatag 1440  
cctaggacca cccatcgttg gttggtttta tgactggacc cagacctatg atattgcatt 1500  
ttattttagt ggcttctgcg tcctgctggg aggttttatt ctgctgctgg cagccttgcc 1560  
ctcttgggat acatgcaaca agcaactccc caagccagct ccaacaactt tcttgtacaa 1620  
agttgcctct aatgtttaga agaataattgg aagacactat ttttgctatt ttataccata 1680  
tagcaacgat attttaacag attctcaagc aaattttcta gagtcaagac tattttctca 1740  
tagcaaaatt tcacaatgac tgactctgaa tgaattatth tttttatat atcctattht 1800  
ttatgtagtg tatgcgtagc ctctatctcg tatttttttc tatttctcct cccacacca 1860  
tcaatgggac tattctgttt tgctgttata cactagtctt taacattgta aaaagtttga 1920  
ccagcctcag aaggctttct ctgtgtaaag aagtataatt tctctgccga ctccatttaa 1980  
tccactgcaa ggcacctaga gagactgctc ctatttttaa agtgatgcaa gcatcatgat 2040  
aagatatgtg tgaagcccac taggaaataa atcattctct tctctatgtt tgacttgcta 2100  
gtaaacagaa gacttcaagc cagccaggaa attaaagtgg cgactaaaac agccttaaga 2160  
attgcagtgg agcaaattgg tcatttttta aaaaaatata ttttaacctt cagtcaccag 2220

ttttcattat tctatttacc tcaactgaagt actcgcatgt tgtttggtac ccactgagca 2280  
 actgtttcag ttcctaaggt atttgctgag atgtgggtga actccaaatg gagaagtagt 2340  
 cactgtagac tttcttcatg gttgaccact ccaaccttgc tcacttttgc ttcttggcca 2400  
 tccactcagc tgatgtttcc tgggaagtgc taattttacc tgtttccaaa ttggaaacac 2460  
 atttctcaat cattccgttc tggcaaattg gaaacatcca ttgctttgg gcacagtggg 2520  
 gatgggctgc aagtcttgc atatcctccc agtgaagcat ttatttgcta ctatcagatt 2580  
 ttaccactat caaatataat tcaagggcag aattaaacgt gagtgtgtgt gtgtgtgtgt 2640  
 gtgtgtgcta tgcattgctct aagtctgcat gggatatggg aatggaaaag ggcaataaga 2700  
 aattaatacc cttatgcagt tgcatttaac cttagaaaa atgtccttgg gataaactcc 2760  
 aatgtttaat acattgattt tttttctaaa gaaatgggtt ttaaactttg gtatgcatca 2820  
 gaattcccta tagatctttt tgaaaatata ggtacctggg tatcacacat agaactttta 2880  
 attctgctgg tgtaggctgt tgcccaaaca tctataattt tactgagctc ttcaagtgat 2940  
 tctgataaca cagcctggat tgagaatttt tataagattg gcaatggaaa aacatttatt 3000  
 cttttaaata ataatttttt taaaacccaa gaggtcaggg gattttataa accaatagcc 3060  
 aagtgttctt taaataggag gcacccttcc cattgtgcca aaatcatctt ttcatttatt 3120  
 ttgaaatttg tatgattatt ttatacttgt atgttgctt tcttcgaagg cgcctgaagc 3180  
 actttataaa cacaaatcct cacaatacct ctgtgaggta ggtaaatagt acttttctat 3240  
 gtagtaaacc tggaatatgg agaatttcat aacagttcat tctacttaat aatgcaataa 3300  
 tggagctcca agttgtcttg gacttctaca ccacactcag acttctggaa agttttctgt 3360  
 acctattct ttagtccttg tcaaggttag taaataaaat aagtgcata aaaaaaaaaa 3420  
 aactaaacta cttgttgtgt tgaaagttcc tttttgccag ttatgttcag gaaacccaat 3480  
 aacctgaaaa agtttgactt tgatgtgaca tcttcatatt catcaatgct gataattgtc 3540  
 caaaggcatc ttcactatgt ctgctaaata acatccaatg tgggcgttat ctgttgtcta 3600  
 ggggatgaat ttttaagttac aataaaatat ttttctttgt tttgc 3645

&lt;210&gt; 1522

&lt;211&gt; 3827

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 1522

aatgcaaggt agcgtaacg tttctgaggc tgaaggagtg gtgtttacta taataatatg	60
atggtgaaga atttggccca caagaaacac ttattcaagc ctacaatttt ccctgggcaa	120
gggaagggtca ccgtgtctat gtcccagcaa attctgaaga cacacatcaa gtccttgcaa	180
gcttggctac tgtggcagcc agagaaatga cttatagggg agagaaacac gtacttgga	240
agaattgacc cagctgaatt ggaaaatgtg ggaaggggat ggggaagagg ctgctccacc	300
tgagatccgg ctccaggact tacagcaagg ggaacttggc aacatggcca atctttccta	360
agctgctcag cttacaagaa aaggaatcat actgctaaga attcaaactg cagcagtc	420
agtccttgac tccacctctt ctgccacaaa catcagcatg gtggtatcag ccggcccttg	480
gtccagcgag aaggcagaga tgaacattct agaaatcaac gagaaattgc gccccagct	540
ggcagagaac aaacagcagt tcagaaacct caaagagaaa tgttttgtaa ctcaactggc	600
cggcttcctg gccaaccgac agaagaaata caaatatgaa gagtgcaaag acctcataaa	660
atctatgctg aggaatgagc gacagttcaa ggaggagatg cttgcagagc agctcaagca	720
agctgaggag cttaggcaat ataaagtcct ggttactct caggaacgag agctgaccca	780
gttaagggag aagttacggg aaggagaga tgcctccgc tcattgaatc agcatctcca	840
ggcctcctc actccgatg agccagaaaa gtcccagggg caggacctcc aagaacagct	900
ggctgagggg ttagactgg cacagcacct tgtccaaaag ctgagcccag aaaatgataa	960
cgatgacgat gaagatgttc aagttgaggt ggctgagaaa gtgcagaaat cgtctgcccc	1020
caggagatg cagaaggctg aagaaaagga agtcctgag gactcactgg aggaatgtgc	1080
catcacttgt tcaaatagcc atggccctta tgactccaac cagccacata ggaaaaccaa	1140
aatcacattt gaggaagaca aagtcgactc aactctcatt ggctcatccc ctcatgttga	1200
atgggaggat gctgtacaca ttatcccaga aaatgaaagt gatgatgagg aagaggaaga	1260
aaaagggcca gtgtctcca ggaatctgca ggagtctgaa gaggaggaag tcccccaaga	1320
gtcctgggat gaaggttatt cgactctctc aattcctcct gaaatgttgg cctcgtacaa	1380
gtcttacagc agcacatttc actcattaga ggaacagcaa gtctgcatgg ctgttgacat	1440
aggcagatat cgggtggatc aagtgaaaaa ggaggaccaa gaggcaacag gtccgaggct	1500
cagcagggag ctgctggatg agaaagagcc tgaagtcttg caggactcac tggatagatg	1560

ttattcaact ccttcaggtt gtcttgaact gactgactca tgccagccct acaggagtgc 1620  
cttttacgta ttggagcaac agcgtgttgg cttggctggt gacatggatg aaattgaaaa 1680  
gtaccaagaa gtggaagaag accaagaccc atcatgcccc aggctcagca gggagctgct 1740  
ggatgagaaa gagcctgaag tcttgcagga ctactggat agatgtcatt cgactccttc 1800  
aggttatctt gaactgcctg acttaggcca gccctacagc agtgctgttt actcattgga 1860  
ggaacagtac cttggcttgg ctcttgacat ggacagaatt aaaaaggacc aagaagagga 1920  
agaagaccaa ggcccacat gcccaggct cagcaggag ctgctggagg tagtagagcc 1980  
tgaagtcttg caggactcac tggatagatg ttattcaact ccttccagtt gtcttgaaca 2040  
gcctgactcc tgccagccct atggaagttc cttttatgca ttggaggaaa aacatgttgg 2100  
cttttctctt gacgtgggag aaattgaaaa gaaggggaag ggggaagaaa gaaggggaag 2160  
aagatcaaag aagaaaagaa ggagaagggg aagaaaagaa ggggaagaag atcaaaaccc 2220  
accatgcccc aggctcaacg gcgtgctgat ggaagtggaa gagcctgaag tcttacagga 2280  
ctactggat agatgttatt cgactccgtt aatgtacttt gaactacctg actcattcca 2340  
gcactacaga agtgtgtttt actcatttga ggaacagcac atcagcttcg ccctttacgt 2400  
ggacaatagg ttttttactt tgacggtgac aagtctccac ctggtgttcc agatgggagt 2460  
catattccca caataagcag cccttactaa gccgagaggt gtcattcctg caggcaggac 2520  
ctataggcac gtgaagattt gaatgaaact atagtccat ttggaagccc agacatagga 2580  
tgggtcagtg ggcatggctc tattcctatt ctgagagcat gtcagtgtca acctgtgctc 2640  
agtctgaaga caatggaccc acgttaggtg tgacacgttc acataactgt gcagcacatg 2700  
ccgggagtga tcagtcagac attttaattt gaaccacgta tctctgggta gctacaaagt 2760  
tcctcaggga tttcattttg caggcatgtc tctgagcttc tatacctgct caaggtcagt 2820  
gtcatctttg tgtttagctc atccaaaggt gttaccctgg tttcaatgaa cctaacctca 2880  
ttcttttgtt cttcagtgtt ggcttggttt agctgatcca tctgtaacac aggagggatc 2940  
cttggctgag gattgtattt cagaaccacc aactgctctt gacaattgtt aaccgcctag 3000  
gtccttttgg ttagagaagc cacagtcctt cagcctccaa ttggtgtcag tacttaggaa 3060  
gaccacagct agatggacaa acagcattgg gaggccttag ccctgctcct ctgattcca 3120  
tcctgtagag aacaggagtc aggagccgct ggcaggagac agcatgtcac ccaggactct 3180  
gccggtgcag aatatgaaca atgccatgtt cttgcagaaa acgcttagcc tgagtttcat 3240  
tctgaagttg tctgaaaatg tcttcatgat taaattcagc ctaaactttt tgccgggaac 3300

actgcagaga caatgctgtg agtttccaac ctcagcccat ctgcgggcag agaaggtcta 3360  
 gtttgtccat caccattatg atatcaggac tggttacttg gttaaggagg ggtctaggag 3420  
 atctgtccct tttagagaca cttacttat aatgaagtac ttgggaaagc ggttttcaag 3480  
 agtataaata tcctgtattc taatgatcat cctctaaaca ttttatcatt tattaatcct 3540  
 ccctgcctgt gtctattatt atattcatat ctctacgctg gaaattttgc gtctcaattt 3600  
 ttactgtgcc tttgttttta ctagtgtctg ttgttgcaaa aagaagaaaa cattctctgc 3660  
 ctgagtttta atttttgtcc gaagttaatt ttaatctata caattcaaac cttttgccta 3720  
 tcactctgga tttttggatt gttttttaca ttcagtgtta taatatttga ttatgctgat 3780  
 tggttttggt ggggtactgat gcgaattaat aaaaacattt catttcc 3827

<210> 1523

<211> 4130

<212> DNA

<213> Homo sapiens

<400> 1523

attggcctgt ccagtgactc ccaggccttt cagaaccacc tggttgatgg gcggatgctg 60  
 aattccctga tgaagcgaga cctggagaag cacctgaacg tgtccaagaa gttccaccag 120  
 gtcagcatcc tgctggggat cgagctgctg taccaagtga acttcagcag ggaggccctc 180  
 caggagcgcc gggcccgcgtg cgagacgcag aacattgacc ccgtgggtgtg gaccaaccag 240  
 cgggtgctca agtgggttcg agacatcgac ctgaaggagt acgcagacaa cctgaccaac 300  
 agcggcgtcc atggtgctgt gctggtgctg gagcccacat tcaatgccga ggccatggcc 360  
 actgccctgg gcatccccag tgggaagcac atcctccgga gacacctggc agaggagatg 420  
 agcggcgtct tccaccagc caactccaca ggcatccggg aggctgagcg ttttggaacg 480  
 ccccctggca gggcctccag cgtcacgcgg acaggaaagg aggagaacag cagcggctctc 540  
 aagtacaagg ctggccgact gccctggggg aagataggaa ggggcttcag cagcaaagat 600  
 cccgatttcc atgatgacta tggctctctt caaaacgaag attgcggaga cgatgacccc 660  
 cagagcaggc tggaacagtg ccgtctggaa ggctacaaca gcctggaggt caccaacgtg 720  
 taaggaactg gtggctccac cagacccaac gtgagagacc caggaaggaa gagaagccag 780

atggccccag gtgtcgttct cactgtacat agcggccgca ggctgaggat gtcccttgct 840  
cctgggcaaa atcccgatgg actctgtgggt ttcagctcca cagcgcccag gagagagaag 900  
acaccagctc acctgtcttg ggtggggccat ggactttcct gttcagctgg agatgggccc 960  
agaggacctg tcacagtgtc cggccctgcc tccatccagg atacacaggc tccacctcag 1020  
agtgaccgtc actgtggagc agccaagcag tccctggagc cttaaaccga gctgccaaagg 1080  
tgggaagagg cccacagttc cctaaaacac ccttccggcg ggagcagggg ggaccccaac 1140  
cccacacccc agcgcccagt gcattggcag agccgggtgc aggaagtgtc gcctcttgcc 1200  
gagacgtcgg acagggcggg ggttggggaa ctctcggcta cagcatctta cccttgactg 1260  
agaacttggg tcttgacttg gctcactgaa tctctcttgg gagaatgcaa aatccttcca 1320  
cctgaaaagc tctgtgacac atgggggtgg acgtattgaa gagctgtttg ccgatccacc 1380  
caggagtggc tacgctgagt ggggagccgg tgaatgatcc gtgcaggagt ggggcttagc 1440  
agccacattt ctaggagatg cagatatact atcaccagaa tgaaagctat tgggacaaca 1500  
ggatcgggga tgaccgatgg ccccatatgg tgaatctctg gcctgtggtt tggctttact 1560  
gagattccaa accccactat ctgcactccg tgacagtgggt atggagtgtg gcaatgagtc 1620  
tggggctctgg ggcagggaaa tgcttgacac tgtaaccca acaaaccctt gttgtgatgt 1680  
ccctgtcacc tgaaacatag gtgacatagc tcaccaatgt cctaaccgag acacaaactc 1740  
cacagagcaa aatcatttgg tattgggtggg gagaacccca gcccttttct tgacctgcca 1800  
ctgttatgct gtgtggcttc tcccagtggt cctcacctct ctgtgcctcg atgtcttcat 1860  
ctacgatact tctggttccc tcccaggac atcgtgagga ttaacacttg ctaatatctg 1920  
taacacaatt tgtaacctct caggagacaa tgggaagtta tggggtagct aatttcccat 1980  
ttacaacaca gaaatgatat agagctagtt cgctccaact ctttaggttg aagcagtgtg 2040  
caaaaggaag aaaagaaatg tttaatgttc agacctgcca agagcctcca acagggtca 2100  
agaaacatat aaatcccatg agcacagcct tgaaaaccag tttgactcaa gccttcgggc 2160  
ctcagttcat tgaccagatg acagccacgt gatgattagg gaaggacgga tgcattgcga 2220  
ttctgcttac acatcgggtt atcaaagcga gtcacttggt gggaccatga tgctcgacct 2280  
ccttcaaggc cgtttgcact ggggcttgag tttccaagat tcacaacagg tgtcagcctc 2340  
tgagaaccct caaagcgtgt gttcttcaac ctggcaaatt gtttccctc atgggggaag 2400  
ccgagctctg atgaacttga gaattacacc tctctcatgc cgaagaccgt ggtgttcccc 2460  
ctaatgacat aaacgcagcc tttcttgctg tctgagacca aatgtctagt tggtagacag 2520

gtggatgttt ggcctcctaa gggcacactt ctgacccctgg gccccaggtg gtgaatctct 2580  
ggcatgtggc ttggctttgt tgagactcca aattccatta tcttcatgac attcggcctc 2640  
atccataggg tcctgaagct gcagtccaca gctcagaaaag gagaggtgag acctccctcc 2700  
aacctggtgc cacaggtctc tcccaagcca catccagcct ggatgacctg ggaccccaga 2760  
aactgccgtt tgggaggcag caacagcaac gtgcccaggc aggcagttat tcccacagag 2820  
tgagccagaa ttgtagcagg gcacttgaat gcagagctga tgatttgaaa ccaacgttca 2880  
cccaacttgt cagaaatggc acttacatgg ttctgatcttg ctggagacaa gtggacaatt 2940  
gggggtcact ggcagagacg gtattgcccc aaatgttcac agcaggaggc cagcaggcct 3000  
gaggcaacac gggcaaccgc gaatgcctct tttggtttaa attatgccat cacaaccctc 3060  
tttcaccgat gaggtctccc atccctgaca gccagggtgag catttgaggc tggtttctca 3120  
acatgaggat gggttggttg ttaaattaac aacctccaca gtatcagatt gagtgagctt 3180  
tgtctgctgg aaaaacctga aacgtcaact ctgcttcaag gtcggcaaga agaacagaag 3240  
gcgggagactt ggcagagaga ctcaagctga ttgtcacagg ctacagaggg gccagctcca 3300  
gaacagtgc cagctacatc ctgtccaagc agcccagtg tggctcttgg ccctgcaggg 3360  
cgatgtgggc atctggacct ggggacgatg tggatgcact tcttggaag ctgttgtagc 3420  
ttgtgcctgt ggggtggagaa ggcacctgcc cggtagactc tcagctttct gacccccagg 3480  
agcctctgca aggccccctt gtccttggct gagccggacc tttcttttgg aaatctgtct 3540  
gtctgttggc atcgctgttt tcagacccca ggctgcagag gaggggagaa gccacacaac 3600  
aatctggacc caataaagtg gagagaaggg cgtctctaca cagcccggcc agcgtggagg 3660  
gccccaggac agggacccaa aagcttgacg tcaactgaaca gggctgggta ctggcagaac 3720  
aggaagattt ggccagaggt gacctcagtg ttccctccag gggcatccag gcccctctga 3780  
cctggggaga agaaggccca tgctcaggcc cacctccctc ttcccatcag agcccatgcg 3840  
tcctgggcac caccattcc actctgcttt tcgaggctct ggagggtctt tcctgctgtg 3900  
aaaggaaagg agaagaaagc ctgtgggcaa tggcaacctc tgagtctggc attcttgcca 3960  
atggctggcc agcgaggaga atctcccgag ccctgacaca caaaggcatt ttgtggctgc 4020  
agaggaaatg ggttggctct gaacaaagat gcagtttcta gggccgtggc cccaaatcac 4080  
ttccccgaga gtgaatttta acactgtaac aataaatact actgcacagc 4130

&lt;210&gt; 1524

&lt;211&gt; 4208

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 1524

```

attccagtta ttgttctcat agcagtggtta tcttcttgac ttcctccagc actgactttt    60
cattataatc cttaaacatt tggtcattgt ggattagaga actatgagcg tttgcagagt    120
gattatgtga cagatgacca cgacagagag ttttcagtcg cagacctctc ggttcagata    180
ttcacggttc cttcacttgc tcgaatgctc atcacagaag aaaacttgat gagcattatc    240
attaagactt ttatggatca tttgagacat cgagatgccc agggcagatt tcagtttgaa    300
cgatacactg ctttacaagc cttcaaattt aggagagtac agagccttat tttagatctc    360
aagtatgtgt taattagcaa accaactgaa tggtcagatg agctgaggca gaagttccta    420
gaagggtttg atgccttttt ggaattacta aaatgtatgc aggaaacatc cctatataca    480
aaacagaatc tagaagtaga aacgaacagg gaatggatcc aattacacgt caagtaggac    540
aacatattga aatggaacca gagtgggaag cagccttcac actacaaatg aaattaacac    600
atgtcatttc aatgatgcag gactgggtgtg cttcagatga aaaagtgtta atcgaagctt    660
acaagaaatg tctcgtgtga ctgatgcagt gtcatgggtg ttatactgat ggtgaacagc    720
caatcacact aagcatttgt ggacattcag tggaaactat cagatactgt gtttcccaag    780
aaaaagttag cattcacctc ccagtttctc gcttacttgc aggtttacat gtattattaa    840
gcaaaagtga agtggcatat aaatttccag agctcctacc tctaagtga cttagcccac    900
ccatgttgat agaacaccct cttagatgtc ttgttctgtg tgcccaagta catgccggaa    960
tgtggagaag aaatgggttc tctctagtaa accagattta ttactacat aatgtgaaat   1020
gcagacgtga gatgtttgac aaggatgtag taatgcttca gacaggtgtc tccatgatgg   1080
atccaaatca tttcctgatg atcatgctca gccgctttga actttatcag attttcagta   1140
ctccagacta tggaaaaaga tttagttctg agattacca taaggatgtt gttcagcaga   1200
acaatactct aatagaagaa atgctatacc tcattataat gcttgttgga gagagattta   1260
gtcctggagt tggacaggta aatgctacag atgaaatcaa gcgagagatt atccatcagt   1320
tgagtatcaa gcctatggct catagtgaat tggtaaagtc tttacctgaa gatgagaaca   1380

```

aggagactgg catggagagt gtaatcgaag cagttgccca tttcaagaaa cctggattaa 1440  
caggacgagg catgtatgaa ctgaaaccag aatgtgccaa agagttcaac ttgtatttct 1500  
atcacttttc aagggcagaa cagtccaagg cagaagaagc gcaacggaaa ttgagaagac 1560  
aaaatagaga agatacagca ctcccacctc cgggtgttgc tccattctgc cctctgtttg 1620  
caagcctggg taacattttg cagtcagatg tcatgtttg catcatggga acaattctgc 1680  
aatgggctgt ggaacataat ggatatgcct ggtcagagtc catgctgcaa aggggtgttac 1740  
atttaattgg catggcacta caagaagaaa aacaacattt agagaatgtc acggaagagc 1800  
atgtagtaac atttaccttc actcagaaga tatcaaaacc tgggtgaagcg ccaaaaaatt 1860  
ctcctagcat actagctatg ctggaaacac taaaaatgc tccctaccta gaagtccaca 1920  
aagacatgat tcggtggata ttgaagactt ttaatgctgt taaaaagatg agggagagtt 1980  
cacctaccag tcccgtggca gagacagaag gaaccataat ggaagagcat aatttcagag 2040  
ttcaagggac aaagacaaag ctgagaggaa gagaaaagca gagattgcca gactgcgcag 2100  
agaaaagatc atggctcaga tgtctgaaat gcagcggcat tttattgatg aaaacaaaga 2160  
actctttcag cagacattag aactggatgc ctcaacctct gctgttcttg atcatagccc 2220  
tgtggcttca gatatgacac ttacagcact gggccccgca caaactcagg ttctgaaca 2280  
aagacaattc gttacatgta tatttgttca agaggagcaa gaagttaaag tggaaagcag 2340  
ggcaatggtc ttggcagcat ttgttcagag atcaactgta ttatcaaaaa acagaagtaa 2400  
atttattcaa gatccagaaa aatatgatcc attattcatg caccctgatc tgtcttgtgg 2460  
aacacacact agtagctgtg ggcacattat gcatgcccat tgttggcaaa ggtattttga 2520  
ttccgttcaa gctaaagaac agcgaaggca acagagatta cgcttacata cgagctatga 2580  
tgtagaaaac ggagaattcc tttgccccct ttgtgaatgc ttgagtaata ctgttattcc 2640  
tctgctgctt cctccaagaa atatttttaa caacaggtta aatttttcag accaaccaaa 2700  
tctgactcag tggattagaa caatatctca gcaaataaaa gcattacagc ttcttaggaa 2760  
agaagaaagt actcctaata atgcctctac aaagaattca gaaaatgtgg atgaattaca 2820  
gctccctgaa ggggttcaggc ctgattttcg tcctaagatc ccttattctg agagcataaa 2880  
agaaatgcta acgacatttg gaactgctac ctacaagggtg ggactaaagg ttcattccaa 2940  
tgaagaggat cctcgtgttc ccataatgtg ttggggtagc tgcgcgtaca ccatccaaag 3000  
catagaaaga attttgagtg atgaagataa accattgttt ggtcctttac cttgcagact 3060  
ggatgactgt cttaggtcat tgacgagatt tgccgcagca cactggacag tggcatcagt 3120

ttcagtgggtg caaggacatt tttgtaaact ttttgcata ctggtgccta atgacagcca 3180  
 tgaggaactt ccatgcatat tagatattga catgtttcat ttattgaaga gaatggcatg 3240  
 gatcaagaaa atcccccttg tgaagaagaa tcagcagttc ttgctttgta taaaacactt 3300  
 caccagtata cgggaagtgc cttgaaagaa ataccatccg gctggcatct gtggaggagt 3360  
 gtcagagctg gaatcatgcc tttcctgaag tgttctgctt tattttttca ttacttaaat 3420  
 ggagttcctt ccccacccga cattcaagtt cctggaacaa gccattttga acatttatgt 3480  
 agctatcttt ccctaccaa caacctcatt tgcctttttc aagaaaatag tgagataatg 3540  
 aattcactga ttgaaagttg gtgccgtaac agtgaagtta aaagatatct agaaggtgaa 3600  
 agagatgcta taagatatcc aagagaatct aacaaattaa taaaccttcc agaggattac 3660  
 agcagcctca ttaatcaagc atccaatttc tcgtgcccga aatcaggtgg tgataagagc 3720  
 agagcccaa ctctgtgcct tgtgtgcgga tctctgctgt gctcccagag ttactgctgc 3780  
 cagactgaac tggaagggga ggatgtagga gcctgcacag ctcacaccta ctctgtggc 3840  
 tctggagtgg gcatcttctt gagagtacgg gaatgtcagg tgctattttt agctggcaaa 3900  
 accaaaggct gtttttattc tctccttac cttgatgact atggggagac cgaccaggga 3960  
 ctgagacggg gaaatccttt acatttatgc aaagagcgat tcaagaagat tcagaagctc 4020  
 tggcaccaac acagtgtcac agaggaaatt ggacatgcac aggaagccaa tcagacactg 4080  
 gttggcattg actggcaaca tttataatta ttgcaccacc aaaaaacaca aacttgatt 4140  
 tttttaacc agttggcttt ttaagaaaga aagaagttct gctgaatttg gaaataaatt 4200  
 ctttattt 4208

<210> 1525

<211> 3890

<212> DNA

<213> Homo sapiens

<400> 1525

cttgaaagta tttttattgg tggagatata agatcacaaac ttccggaaga ggcaaaaaag 60  
 tttgacaaca tcgataaagt atttaaaagg atcatgggtg agaccttaaa agacccccgtg 120

atcaagaggt gctgtgaagc cccaaaccgc ctcagtgacc tacagaacgt cagcgagggc 180  
ctggagaaat gccagaaaag cctcaacgac tacttagatt cgaagagaaa tgctttccca 240  
aggtttcttct tcattttctga cgatgagttg cttagcattc tggggagcag cgaccctc 300  
tgcgccagg agcacatgat caagatgtac gacaacatag catcactgag gtttaatgac 360  
ggcgatagtg gagaaaaact ggtgtccgcg atgatttcag cagaaggaga agtcatggag 420  
tttcggaaga tcgtgcgggc tgaagggcgc gtggaggact ggatgacggc agttttgaat 480  
gagatgagaa gaactaatag actaattacc aaagaggcta tttttagata ctgtgaagac 540  
agaagcagag tcgactggat gctcctgtac cagggcattg tgggtgctggc cgctagccag 600  
gtgtggtgga cctgggaggt ggaagacgtc ttccacaaag cgcaaaaagg ggagaagcag 660  
gccatgaaga actatggcag gaaaatgcac cggcagatcg atgagttggt aacgcgcctc 720  
accatgccgc taagcaaaaa cgacaggaaa aaatacaaca ctgtttctcat cattgatgtg 780  
catgccagag acatagttaga ttctttcata agaggcagta tcctggaggc ccgagagttt 840  
gactgggaaa gtcagttgcg gttttattgg gaccgggagc cggatgagct gaacatccgc 900  
cagtgcacgg gaacctttgg ttacggctac gagtacatgg gcctgaacgg caggctggtc 960  
atcacgcccc tcaccgatcg gattttacctg acgctcacc aggcgctgtc catgtatcta 1020  
ggtggggccc ccgccggccc agcaggaacc ggcaaaaccg agaccaccaa ggacctggcg 1080  
aaagccttgg gcttgctctg tgttgtcacc aactgtggcg aaggcatgga ttacagggcc 1140  
gtggggaaga ttttctctgg cctggcacag tgcggggctt ggggctgctt tgatgagttt 1200  
aatcgaatcg atgcttctgt gctctccgtg atctcctccc agatccagac gatccgaaat 1260  
gctctgatcc atcagttaac cacgttccag tttgaagggc aggagatttc cctggactcc 1320  
cgcatgggca tcttcatcac catgaacccc ggctacgcag gccgcacgga gctgcccag 1380  
tcggtgaagg cgctgttcag gcctgtggtc gtgatcgtgc ccgacctgca gcagatctgt 1440  
gagatcatgc tcttctctga gggcttcctg gaggccaaga ctctggcgaa aaagatgacg 1500  
gttctgtata agctggcccc ggagcagctg tccaagcagt atcactatga ttttggactc 1560  
agagccctga aatcggtgct ggtcatggct ggtgagctga agagaggctc ctctgacctt 1620  
agggaggacg tgggtctgat gagggccttg cgagacatga acttgcccaa atttgtgctt 1680  
gaagatgttc ctcttttctt tggtttgatt tcggatctgt ttcttgggct ggactgccct 1740  
cgcgctccgt accctgactt caacgatgcg gtagagcagg tcctggagga gaacggctac 1800  
gcggtcctac ccatccaggt ggataaagtg gttcaaagt tcgagaccat gttaacccgc 1860

cacacgacga tgggtggtggg gcccaccaga gggggcaagt ccgtcgtcat taacactctg 1920  
tgtcaggccc agaccaacct ctcttgattt aggcttgggc tgacgacaaa gttgtacatc 1980  
ctgaacccca aagccgtgag tgtcatagaa ctctacggca tcctggaccc aaccacccga 2040  
gactggacag atgggggtgtt gtcaaacatc ttcagggaaa tcaacaagcc aacagacaag 2100  
aaggagcgaa agtatatattt atttgatggt gatgtggatg ctctatgggt ggaaaacatg 2160  
aattctgtga tggatgacaa cagggtgttg acattggcca acggggaacg catccggctc 2220  
caagcacact gtgccctgct ctttgagggt ggagatttac agtatgcctc ccctgcaact 2280  
gtctctcgat gtggaatggt ttatgtggat cctaaaaact tgaaatatcg accatactgg 2340  
aaaaaatggg ttaatcaaat accaaacaag gtggagcaat acaatttgaa tagtctcttt 2400  
gagaagtatg tggcctatct catggatgtg atagtgggaag gaattgtgga tggaagacaa 2460  
gcagaaaagc tgaagacaat agttcctcag acagacctca atatggtaac ccagttagcc 2520  
aagatgttgg atgcgttgct agaaggagaa atagaagacc ttgacctgct ggagtgtctac 2580  
ttcctggagg ctttgtactg ctctctggga gcctccctgc ttgaggatgg aaggatgaaa 2640  
tttgacgaat atatcaaacg ctttgcttct ttgtctactg ttgacacaga aggagtttgg 2700  
gccaaccttg gggaactgcc aggtcaactt ccaaccttgt atgactttca ttttgataac 2760  
aaacggaatc aatgggtccc atggagtaaa ttagttccag agtatattca tgcccccgag 2820  
aggaaattca tcaacatcct ggacgtttca tgagagcatt gtggctgtga gtggcaagct 2880  
gacattctgc acgctagcac tttaaaaaa tattgtgcaa gacctacctc ccactccgtc 2940  
aaagtccat tacatcttca accttcgaga tctctcacgg gtttttaatg gtcttgtcct 3000  
cactaaccgg gagcgattcc agacggtggc ccagatggtg agagtctgga ggaatgagtg 3060  
tctgagagtc ttccacgacc ggctgatcag tgaaacagac aagcagctgg tacaacagca 3120  
cataggcagc ttggttgttg aacattttta agatgacgtg gaggtggtga tgagggatcc 3180  
catattgttt ggagacttcc agatggctct gcacgaagga gaaccacgca tttatgaaga 3240  
catccaggac tacgaggcgg ccaaggctct gttccaggaa attcttgaag agtataatga 3300  
aagcaacacc aaaatgaact tggttctctt cgacgatgct ctggagcatt taaccgggt 3360  
gcaccgtatc atccgcatgg accgcggcca cgccctgctg gtcggggtag ggggctcagg 3420  
gaagcagtct ctttcgaggc tggctgcctt cacagccagc tgtgaggtca gtccacgtac 3480  
cctcccagaa ataggtttac gatgccagtt tctgcagttg gtagttcgtg tacatattgg 3540  
aacaatccac agcagatcat agcatgatgt ttcatagag tatcgaggtg ggtgttttgg 3600

tttgttttat tttttcttgt ttttggttg atattactat attttaactg aatagccaga 3660  
 gcatctaagt acaggtgttc tttggcttag gatagggtta catcctgata aaataatcat 3720  
 aagtcaaaaa tattgtcagt tgaaaataca tttaatatcc caattaaccc atcataaagt 3780  
 tgaaaaatcc taagtggaac catcaaagcc ggggaccatc tgtattgctt tgtttttagg 3840  
 atggagaatg tcagatcaag ttagaaagtc aaatacaagc acatcctgtg 3890

<210> 1526

<211> 3084

<212> DNA

<213> Homo sapiens

<400> 1526

tgggtgtcct tccggctcat atgcgcggtg gttctcctct aggtcaccat ggctttgtca 60  
 ttggttactc cctctttcta aggcgccttc ttgtttggtg ggcagtattg ggtgggtccc 120  
 cccacagctt cgtgaggtgg gctagaggag ctgggcatcg ggtcagtgcc ccggcctgct 180  
 gggggccctg tggggccgcg tgtgccccgg tgcctggaag gccgactctc ttgacagcag 240  
 gtcttctctc caaacgtatc caccagcca ggtgtctgcc atggggctgc ttagagtcgg 300  
 ccacaaaatc aaccgtctg cagggtcagt ggcttggcat tgggctttgg ggcctgtccc 360  
 tgtggctggc agcctgcctg ctgcccggtc cacgcctctg ttgccttgga tttgggttct 420  
 gagtgaatgc agccttgctt cttggaccgt cctgtgagac gggcagctct ccacctgcgt 480  
 cctcagcact gcgcccttgt tgcaggtatg gcgtcatcat tgtgggcaac ccgaaggcac 540  
 tatcaaagca gccgctctgg aaccacctgc tgaactacta taaggagcag aaggtgctgg 600  
 tggagggggc gctcaacaac ctgcgtgaga gcctcatgca gttcagcaag ccacggaagc 660  
 tgggtcaacac tatcaaccgg ggagcccgtt tcatgaccac agccatgtat gatgcccggg 720  
 aggccatcat cccaggctcc gtctatgata ggagcagcca gggccggcct tccagcatgt 780  
 acttccagac ccatgaccag attggcatga tcagtgccgg ccctagccac gtggctgcca 840  
 tgaacattcc catccccttc aacctgggtca tgccacccat gccaccgcct ggctattttg 900  
 gacaagccaa cgggcctgct gcaggtgagc atctgtggct gcggctgggt gtggccctcc 960

tgagagctct tgagggtgtg cttgtctgcg aggccctggc ctccttcgga tcaccctgga 1020  
ctgctgtctt tcagggcgag gcaccccgaa aggcaagact ggtcgtgggg gacgccagaa 1080  
gaaccgcttt gggcttcctg gaccagcca gactaacctc cccaacagcc aagccagcca 1140  
ggatgtggcg tcacagccct tctctcaggg cgccctgacg cagggctaca tctccatgag 1200  
ccagccttcc cagatgagcc agcccggcct ctcccagccg gagctgtccc aggacagtta 1260  
ccttgggtgac gagtttaaat cacaaatcga cgtggcgctc tcacaggact ccacgtacca 1320  
gggagagcgg gcttaccagc atggcgggggt gacggggctg tcccagtatt aaaaggtggc 1380  
ggcggaagag ctaagcaacg tggcttagtc catcagcatc ttattctggg taataaaaaa 1440  
taaaaataaa cggatacctg ttttccactg ctaaaactga agcaccactg tgtgagcaac 1500  
aggaagggag agcgcacgag ggagaggagc cgaggccgag cgccccctgc tggcccgagg 1560  
cggcgaggag cagagggagc ggaggagggg ccggccccgcg ggagccgcgg ccaccaggag 1620  
gccccgctcc gtcccatcgg ggctgcggcc agggcgaggg gaggaagacc ctcatctcag 1680  
agtagccctt tcctctgttc ttttatttct ttttctcttt gattgaaagg ggactacgtc 1740  
ttagcaggaa aaaaaacttc gcatttctgt gcccagacag gtccttgca aagacagcag 1800  
cgtgcggggc agagccccgg gagggcgcggt ctgtccacgc ctaccggacg cgccgaggtc 1860  
gcgctgcctg tgttctccga gggccttcat tttaaagaaa taagggtgtt ttgggttttt 1920  
ctctttgttt ttttcaagat tcttttaaag gagtactgaa gaatactttc ctaagtttgt 1980  
ctctaaaatc ttagcgggtg acctgggaga tttgagaagc ttccagaaac agtttaaaaca 2040  
agccagcgt actggagaag aggagcaaca cctgtgccgc ggccggagga gttttgttgt 2100  
tggttttagc ttccagtggc ttctttctgc ggggcatcag gctgctgggg tagccgcccg 2160  
ccgagcctgg aagctgctcg ttctccgctg gactcagaag ccaagctgct tcccgcctag 2220  
actcggcgca gggccccgca ccggtgagga aggtgctttt ggccccattg cgaggggcct 2280  
tgGCCaggac tggccctgtg gccaggaggc gagaagggtg ctgttcccgg attgacggct 2340  
ttttcccggg ggcctttgga agatttggtg gaaggacaag agggcctgtc cctgtccccg 2400  
tccccaggag gtaccgacag tccctgtgct ggtagacac ggagcgctgc acaccgaaag 2460  
cccaaattgg gagctctgcc tgccggcaac tttgctgatg ggggtgattgc tgcttctggg 2520  
gggtaaggaa acaagttaca gaaattaccg cgttctgtgt gaagggactg aggggtgtgt 2580  
gtcattggca gagggtcatt ttaggagagc tgccccagcc cctcgaacac ctggcttggg 2640  
gtgtcattct gcctggcggc caggcctcca gcttcccctg ccccgggcct ggggctgtca 2700

ctggccctga tccgaacacc tccagattcc ggcttctaca tgggacagac ggggacgcac 2760  
 aggccacctt ctttctggca gggactctta tttattccca ttgctctagg gctttcggtt 2820  
 tcccccttctt ccggtaggcc gcgtagaggc atgcaccggg taggtttccg cggtgacccc 2880  
 gcggcggcct gagggacgct ccctgccccca tcccggctgt tgggctgggc cgctttgcct 2940  
 ctgcttcgcc ctgtgctgtg ttctccagct ttgtagcagc agccttgaca aaccacggcg 3000  
 cactgtacca aggcaatgta acttttgatt ttcgggtcaat ttaagttctt ttgtcaccaa 3060  
 atattaataa acagttttga cttc 3084

<210> 1527

<211> 5027

<212> DNA

<213> Homo sapiens

<400> 1527

agaaagtatc tagactgatc ctctcatttt acaaagggtg gcaatgaggt ggcccaggga 60  
 tgggcaggaa tgggcctgcc caaagcttcc tgacatggca atctcatgcc accttgcatc 120  
 cagccaagga aatactggac actacagagg cctgtatgct cagtcaacct ggcaccatcg 180  
 ggtccccag agactcatag agtatccagg gcagtgggta tgccccctctc ccttaccat 240  
 cccactctgt tccaggcacg ccateccctcc ttgttctga ctcttgacta cgctcttggt 300  
 tatectctca cctctgggtc ggtctcccaa ctcatcattt ctctctctca ctccctctct 360  
 cactcacctt ctgctctca ctctctcgct ctctcagat ttaccaggct ggctatttct 420  
 acttctgaca ctttgcccta gttggggcct agagaccag ccccagccc cagctcctac 480  
 ccaactggcca gtgcccagaa ggatcatggc aggaccaga cacacatgtt cacgtggcca 540  
 gtagatccca gttacaggca gtagaacgtg ggtgagtagc aacagtgtac ggctccatga 600  
 caagcacagg tagcctagcc gtgtagcaat gggtcactct tccatagcaa ccaaacaaaa 660  
 ttacatagca atggatgaac tcaagcgacc atgaggcaca gtgacaagca atcgaacgtg 720  
 gccgcggagc agtggagtggt cgttgcataa caatagacc agccgtagaa gcatgtcaca 780  
 cagccctgca ccgcaggagg gtgcaatcac gggaatgagt acggagcaca gtgtggaaga 840

cgtgggcaga catacagagt agtagcactg ggacacaact gagtagcaat ggcacgggtca 900  
cagtgtgtgt ggctcctgga catgcggcca gggagcgggtg gccggcagca ggtcccaggg 960  
ctggagcagc aggcgccagc gacatggcag tggttgagtt gtggtcaaata gaagaaccgc 1020  
ctccctcacg ctgggccgtt gtctccggct gagcctcttg gcctcccctg atttcaggag 1080  
tgtgtttgtc tatatccagt ctcatcatgc attccccgga gcccacacac caattttatc 1140  
tctgattccc ttcagatccg acttcagctt aataggaaat tgaacatttt ctggagagaa 1200  
aagcgctctg ggaatagatg agagtggaga agaggagggtc tatgcctctc tgtgcaatgc 1260  
tgcttgctgc ccctggccct gcctgtccca tccccatggc tctaagacc cactgtggct 1320  
ccctgcccct ggatgtgccc ttgatctacc tcattcccag actgcaacc aaccatttct 1380  
tctcaccttg gaacacttcg ttttgatgca ggcctttcaa gtccatttg gtcaacatgg 1440  
tacaaaactc tggctcctggg tgggcccatc aagggtcaagg tcccatgggt atgggtcttg 1500  
gtcaagtgtg gggcctcagg cagaggtaga ggaagcctta tctcccgtct gagtagctca 1560  
ggaagccatt ggaagaggt gagcctttta gtgagtgtga agagtgggt gttaagggtc 1620  
atcctgaaca tggcaactcc ccaaatagtc aacagcctgc aagcatctgc cctccactct 1680  
ctgggcaccc tgagcccatc tcacacggag ccaggccatg cctcctgacg ccaggagggg 1740  
agcaggtaag gcgagggggc tctatgccac ctctagatgg accgacttcc tccacaaagg 1800  
gtttctgaaa cacctgccat gtgcctggac tccccattcc tccagcctgt cagaaaacca 1860  
gaactctcca ccctgccatg tgcccagccc tgtgtccagc tggggcaggg acatggggac 1920  
aaagaggcca aggacctcag ctctgagaat tccccagtgg acaggagcaa gccatacccg 1980  
gggagacgat tagtggcaca gagtaggcac acagtaaata tttggtgggg gatgaacagg 2040  
caaaggaggg gcatggttgg gacaatgtag ctttttaact gccacactta cccagcactc 2100  
ctggacacac ctagttagcc cttagtgaat gagagagagc tggggaggtg gtggataggg 2160  
ggagaggcag gcaaggaagt ctccctggag gaggcagact atgctttgga taaagaaagg 2220  
cagatgtgct catttactat ggaagaattg tgtattcagt gttgtttcca gcacagaaat 2280  
tcaagcacag ggttgcttcc ctctcttcc tgtctctctc cctgtctctc ctgctctctc 2340  
tcgtctctc tctttttctc cctccccct ctctctctcc acctctctct cttctctct 2400  
ctctctgcct cctctgttcc cctccctct tctgccttgc tcagaggaga tttgtggcag 2460  
accagagggc cctcatacca ggagatgaat aattgacaag ggttgtaaa agattcagtg 2520  
gagtttttcc aacctccta cactggaata actcatttct ttcattctgt ttttgaaagc 2580

ctttccccct cctccacct gtctctcca catccccgcc cctctgagc ataccgcttt 2640  
tgtttctctt cttttcttga gtctgttgga ccctagaatg attcggcctt aatccctcgg 2700  
tttctctaaa tccccctccc cagctgtccc caccctactt gccgtgctcc ggaggtgtag 2760  
gttgacttca gcagagacag cccagatca tgagtgcaga gaggaaggag gaccagggaa 2820  
gctgtggcct ctccaagtc ccagtgtgcc agaggtgggc tcggtcctca gaaaggcaag 2880  
cctcccagca cagggacccc tttctcgcga ggcaggcggga ggggtgctct ggggacgctg 2940  
ggtgaccatg tgccttggtt tctccatctt agcatgctgc ttaccctacc ctacctgcct 3000  
ctcaggatca gatgggagag gtgaggcccc ccagaaaggg cggctggccg tgtagcagag 3060  
acacctgag cctagtctt tctgtcggc tggcatggcc ctggggtgac caccatccc 3120  
tgtctgtcca ggactgacgg gtttcagac tatgaggtgt tcagtgtta aaccaagaca 3180  
gtcccaggca aacctggatg ggggccaccc tacgtggcac agaaacctcc cctgtcccag 3240  
gtctgcccc actggaggtt ccacactctc taccctgtca gcctccctca tccacagggc 3300  
atactcccc tgcccagtct ggcccagctc cgtgctgtcc atgcactcat agtgcctcca 3360  
ctgctcctgc aagtacctt gaccttctt ccttctctg ggccccagtt cctgcctctg 3420  
acagcacagg cggttggagc agatgttctt gagtgccctg aggctcctgc actgtggctg 3480  
cagccttggc cctgccccca gaccacacc caggatgggg tctgcagcct ggtgaggccg 3540  
acagcagagc agtcagaccc ggctccact cctcagcacc acctgggtggc aggtgattaa 3600  
ctctgagcag gagtcttttg aggctgccag cagcagtcac caggggaggg acttgagca 3660  
cccctgcaca ctaccactt tgggtggcaac aagcagcagg aacgtcagcc tagggtggtg 3720  
acattgcaaa gccccgggag cctgggattg gccccagga gcaggaataa gcagcccccc 3780  
cagggccact agttcaggca ccaagcccag cctgggagca gggtcacca ggttctggga 3840  
gtacgagagg gccagggccc caggtccttt ggaaccaaga gaggctgagg aactacaaga 3900  
gaaacaggga gtgagacaga gacaaagaga gcagagccaa ccaggggcca cccaacggcc 3960  
tccaaacaga cgcccttgac tcagtgtccc cttcaggcca tcccacacca gccacaagac 4020  
acgttcccaa aacactggcc acccagcct tcctgtgtg tcccctcagt ctccgtagcc 4080  
cctgactcta ctgccagcg tgattgcccc atttgtgtggg tttgtgctct ctcccagtca 4140  
cctctccaag catccctgtt ctgtgcagca cacactcac agtccccgcc caggcccagc 4200  
tccccgaagg caggaaggct tctcagggcc ccagccctcc tcagcgtctc ccctgcactc 4260  
ctgcaggccc cgagctggga gcaccgcctg ctgacagggg ctggaggggg tcctacaatt 4320

aaatacttaa gacaaggcaa cgcacctaag ccatggctga gaacactcgc cagctctttt 4380  
 ccccttcctg tccctccccc aactctgacc tttttctctc caattcctaa acacaatcac 4440  
 acacagtgtt taccaagcat tttagcgagg aagggaggga gggagaggag aagggtagaa 4500  
 aggaagaaat aaggatcaca tcccacatgt gtctgttact tccctctgca gacccctcct 4560  
 ctcacctgca tagctcttgc aggttttgtgt tccatctcca ccactccgaa gctgtgtgac 4620  
 cttggataaa tcactccacc tctctgctcc tgtctcctca ttgttaagta gagggaacac 4680  
 tgtcaccctg tccacctctt gagactatgg gggggattaa caagagaatg aggggcaatg 4740  
 tgttggaaac tgtaaagggc tgtccacttt gcaggagact taatagtcac tgtgttcctg 4800  
 gggccctgcg atcaaggcgg agaataaaaa ggaagcaaaa atccccagg cctctccctc 4860  
 tgaccctttc tccggcaggg ctgttcccag acccctgacc cacttctcct cctccttcc 4920  
 cccatccctc cgagtctcag cgggccattc tctcctcca tccatcacct gagactaaag 4980  
 agattaataa acgagactca taactcagct gctgggatgc agcagat 5027

<210> 1528

<211> 3874

<212> DNA

<213> Homo sapiens

<400> 1528

gcatcagttt tgaaaagctg cttagtggta cgcacgtgct aggtgaaggc atgctttgtg 60  
 actgcggtgg ttgacaccag cctttctccc ttctcagtct gtcagtcaa gagtctaagc 120  
 tgatggctgg caggttgccct ggtcatttct gggttttctg ttccgctact agaaaggtag 180  
 agccagtctt acctactgta gaaaatgtta ggaaggcagc caggcacagg gtgataaaac 240  
 caatgagatg atcagggtca agaacagtaa tcagggtttc cacatcttgc tgggtgttggc 300  
 ataagccagg aaagtttcag tgtggccaca tggggtatct tctaataatt aaaaactcgt 360  
 cttcattctc tcttcttggg tacattccta tcccatgcgt cccacattcc atgaaccttt 420  
 cttcctctag accactctcc tatacgtgtg gacacctccc caagaaagag catgtcagaa 480  
 aggaagtggg ctttgattta tgaccttggg ctgtgatttg ggacagatgg tctcaagaga 540

aacagctgga aactgccacc acagcatctc tttgaggacc cccatggatt gctgtgcgca 600  
gaggagaccc catgggtacc actcaggctg ccaatggccc cacacagtct ctacctttcc 660  
tggggagcta cggagcaggc tctgggtttg gcattttgct tctgtccctc gagtgaatg 720  
tgccctctgct tcatttctgg aagatcgggt ttgtgatttt tgtgattctg ctttagccca 780  
ggattcgagg gatcatgtcc acatttgtag gccatccagg gagcagagag aaacttttag 840  
ggccgtgata aagacaagcc aagcggaaaa tagcctgtgc cctcattggc acacctggtg 900  
tctttatttc cattagccct gattgatcaa gcgttgctgg tctgtgggca cttcacgctc 960  
ccagagagac cagattggag ctgtcctgtt gaatctggcc tgtaccagat catcactgga 1020  
gagtgggagg gggcgtcttg ttagattcct aggtaacccc tgccccatt cctaacatat 1080  
cactttccag tatttcccaa gagcctgaat taatagttaa ctagctgctg gaaatcaaaa 1140  
gttagatctt gagaatacta agttgataag tcaggcttgg ccagtatcca tatgctgcat 1200  
ccacagcaaa tagagtggcc atttattggg cacagtctct ccatggcggg tgtgcaatct 1260  
gaacccacag gagctgtttt gctctcactt aggagactag cattcattat tgtcccaggc 1320  
agttcaggaa aagctgattt ggtcacagct taattaggaa atccagtgtg agctactaca 1380  
ttcatgagtt gctgttttct ctgtagcagt ttcgtcacct ttactaattg gccttaaata 1440  
attaagttag gcagggtcac tcaggatttc tgcttaccaa agcacaacag ccacagcaaa 1500  
gggccaaaata cggccgtggg ccggggccgt gagcccggca ctcacaggc agactaggaa 1560  
aggcactgtg ggtagcccg atactgggag gagacccatg ggggagagac cgcggctgga 1620  
agggcgtgta gagatatcat cctgatgctg gggcagcctc actggcggca ggctttgtcc 1680  
taagtcctgt aagtcatggg gtaaggggta gtagcagaga cacagaaatg tagctcagca 1740  
gaagctggcc tcttctgcac acttgacatt cagaaaaaaaa gttcctctgc caggaacttg 1800  
caagtacaaa gcctgggaca ttctcaggcg tctgtcagaa cttgatctgt tatcttgtct 1860  
gccagggtaa agagctgcag agaaatggat tcttgtcctc atccacgggt ccacctcca 1920  
ggactttagg ctgcagcatc atcacacgta tgccgggagag aaagtggggg cttgggaagg 1980  
tactggggca gagggaggcc acaggaagca tatttcagta gagagggaat tgtccccatt 2040  
taatattatt tgttttttgc gagttattta ttgaatgcag gtgtggatag cctgtctcat 2100  
gctaggcagc cccttcactt gaggccata tagttttagc ttctataatg aataccatct 2160  
atgtttctta tttttatgat tcttatatat acccatgcat tttaatacta aacattttaa 2220  
tatatgtccc tttagtcatg ggatgtgttc cagtgtgttt tgaggtgtag aatactctgt 2280

gacaagggct cacctaggct ttacttatta cagatgtgat ggctgttggc aaacaaaacc 2340  
tccgtagagc ttgggtggta gaaactgaat cctgacactg atatttcact gtctgtgccg 2400  
aggggagcct gatatttctg tgtttcatac tggctctacc tgggtgaatc attcctcaaa 2460  
cctcaaacca agaattctgc tgagaaggca gtggacattg ttagaggcag tctccccctg 2520  
cctgtcgctc cccatattcc aaggaactgg ctggctctta atcctgaact gaatcattgg 2580  
attaagtagc aacgatactg gttagaaaca atgggggtgtg gtgagcaact tggattatcc 2640  
caggatttag gtgatgtcag ggtggctgca tgctccatct tagacattac cattgcttga 2700  
taccaacttc ctagcagctt gctgccattt aacacagcac atgtttgaca agttaccgtg 2760  
tttgactggg ttaggtctgc tggcttttaa gaaatttctc ctagtgggaa tgtaaagact 2820  
gaattaaaac cttgtttcct acctcattta ttaggttcca tcaaattcca agagcttgctc 2880  
ggggcccaaa cacaagggat acataggaat cctttgcctt tctttaagtc actagccttg 2940  
catttgccac gtctgccctg gcgatgtctc ccccggttcc attttaccct gatctggaag 3000  
atgagcactg agagaatcag atgaatttca tggagcattt ttgtaaccaa taaacttctg 3060  
ggccccaggg ctccagaggt tcttgccac agctgctttt ttccaagcag aaggctagtc 3120  
gctggaactc cgagatgcat acaccactgt gactcttccc ttgctcccag catgccttgc 3180  
tctgtccttg tgagtatcct cctagggact tcatgtgatg gaactggatt ttcttttcca 3240  
ggctgacaga taaggcagtg aaggactatt ccgcttaccg ttcttccctt ctcttttggg 3300  
ccctcgtcga tctcatttac aacatgttta agaagggtgcc taccagtaac acagagggag 3360  
gctggctcctg ctctctcgct gagtacatcc gccacaacga catgcccac tacgaagctg 3420  
ccgacaaagc cctgaaaacc ttccaggagg agttcatgcc agtggagacc ttctcagagt 3480  
tcctcgatgt ggccggtctt ttatcagaaa tcaccgatcc agagagcttc ctgaaggacc 3540  
tgttgaactc agtcccctga ccaccacaca gcagctgcgg cggcgaagac gaagctggct 3600  
tgcttccac cctctgttct ccctccttgt gcattaagtt ccctccgcgg gatgctgcat 3660  
tgttaccctg ccctccctc tctcattttt cttgggtgtgg cttgggggtt ttaggcttcc 3720  
tgttttatct cgtgtgtgtg gtgcaccagc tatgagggtg tctgtaacc aagccatcaa 3780  
agggcctgta catacctagg agccatgagt tgtcccggcc agcttcatac ttgagtgtgc 3840  
acatcttgag aaataaaca gtgacttaac acac 3874

&lt;210&gt; 1529

&lt;211&gt; 5002

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 1529

```
agccttcatt aacgtgattt actgaggccc ctgtcattcc tggctcttag taaggatttt    60
ccagatagga cagctgtgat tacgcaggca gagaaagggt acagatcagg ttaccaaccc    120
cctcctactg acttcaggta gtttgatagg gtgagggcag attatcccat ggagcatgca    180
cccagggagg aggggcagcg ggaaagagaa cgaacagaag ggcgagagaa ttggcaggat    240
ccgtctccta cctcttccta ggcccacagc cagtgccttt ggagtactga ggcgcgcaca    300
gagtccttag cccggcgcag ggcgcgcagc ccaggctgag atccgctgct tctgtggaag    360
tgagcatggt tgggcagcgg gtgtctgttc tagtggcctt ctttctttct ggggtcctgc    420
tctcagaggc tgccaaaatc ctgacaatat ctacactggg tgagtgttg gccggagaat    480
tcccagacag gcgcgtcccg gatccccgca ctgccagggc tccagcgaac ggcgattgat    540
cagagttatc caggcgattt tccaggctgg gcttgcggac ctggctggag gagggagaag    600
cccattctagc cgtggggcag agaggggcct ctattgctga ggtggaagcc attacctact    660
gttgaccgg gtgtctcaga ttcttcaaga gcatggtcac aatgtgacta tgcttcatca    720
gagtggaaag tttttgatcc cagatattaa agaggaggaa aaatcatacc aagttatcag    780
gtggttttca cctgaagatc atcaaaaaag aattaagaag catthttgata gctacataga    840
aacagcattg gatggcagaa aagaatctga agcccttgta aagctaattg aaatatattg    900
gactcaatgt agttatttgc taagcagaaa ggatataatg gattccttaa agaattgagaa    960
ctatgatctg gtatttgttg aagcatttga tttctgttct ttcctgattg ctgagaagct   1020
tgtgaaacca tttgtggcca ttcttccac cacattcggc tctttggatt ttgggctacc   1080
aagccccttg tcttatgttc cagtattccc ttccttgctg actgatcaca tggacttctg   1140
gggccgagtg aagaattttc tgatgttctt tagtttctcc aggagccaat gggacatgca   1200
gtctacattt gacaacacca tcaaggagca tttcccagaa ggctctaggc cagttttgtc   1260
tcatcttcta ctgaaagcag agttgtgggt tgtaactct gatthttgcct ttgattttgc   1320
ccggcccctg cttcccaaca ctgtttatat tggaggcttg atggaaaaac ctattaaacc   1380
```

agtaccacaa aatgggcaac cagctctctt caccaccccc agcttattct cctctggagt 1440  
gtatcctgaa ccactgagat ggctttgacc ctcagaatct ggaggaaaaa cacctcctag 1500  
cctgtgtatc ctgaaccact gagtctgctt tgaccctcag aatctggagg aaaaacacct 1560  
cctagccctc ggaacaaagg tttggccaaa ttatgaagga ctggcttggt ctcaggaagg 1620  
aaccattcat tgtgatacca tctggcagct ggacattttc tgtaggcgtg aggacgaatg 1680  
gcctgaggcc ccacatgtgc aggcttttta taccttgcag ggaaatctag atctttgctg 1740  
acagtgtagg attgatccag ccctcctgct ttgtcatttc aggagaggct gcaaagggca 1800  
attccaggga actaaagaaa caaatccag aggcactccc agcagagaag ccagctccct 1860  
ccagctctgc tcctctgggt ccacctcaac ctctctatcc agcttcagtc tctcgcttgc 1920  
ctaactctag aaatcctcac cctagacaag cccagctctc actcctctc ttccaacaga 1980  
tgccagggtga atttggcccc agtaagggtgc aggtctcctt cccctacag gacttaaagt 2040  
acattaaggg ggatttttgg caagttttca catgaccctg acagatagat agaggctttc 2100  
cagaatttaa cccaggtatt tgaactctct tggagagaca ttgtgttact tttgaatcag 2160  
atcctgatga aactgagaa gcaggctgct ctgcaagtag cagagagatt tggggatgag 2220  
ctttgtttca catatagtgt caggaaaggg ggcaaacttt atccgactgg aagagaagca 2280  
gtaccagtaa atgaccctgg atgggatgga tcccagtgtt gaaatgggag actggaagag 2340  
gagatacttt caggacttgg acaacttcat tgccaacttt ggggatgcag ggtttgtcct 2400  
tgtggccttt ggctccatgt tgaacaccca tcagtcccag gaagtccca agaagatgca 2460  
caatgccttt gccacctcc ctcaaggagt gatatggaca tgtcagagtt ctattggcc 2520  
cagagatgtt catttggcca caaatgtgaa aattgtggac tggcttcctc agagtgcct 2580  
cctggctcac cccagcatcc gtctttttgt cactcatggt gggcagaaca gcgtaatgga 2640  
ggccatccgt catggtgtgc ccatggtggg attaccagtc aatggagacc agcatggaaa 2700  
catggtccga gtagtagcca aaaattatgg tgtctctatc cgttgaatc aggtcacagc 2760  
cgacacactg acattacaa tgaacaagt catagaagac aagaggtatg tggctctcta 2820  
agcatgtggt cactaaggct gaatgaagat agaaaacaca agggatactg tgtatgtatt 2880  
tttcacaata atagctgaaa ctctctgtgac atggaataac atgtgtgtga tgctaacagc 2940  
ccacctgttt tctctggtaa gtctctagga agactaattt aggttagatg ctgagaatta 3000  
ctttcctacc ttaaggctgt gatggcgaca aattatatac acatgatctc tttgactgat 3060  
cttatatttg ggagtcctc tagtggaatt ccaactgaag cgggggggtt ctttgtgtgt 3120

ttccccagtg tgcctgctct tctcacctct ggcttcttcg tctgtgctgc tccctagaac 3180  
acccttccct tctcttcaca ggactggctc cttcatgaca tttgggtctc ttctccaatg 3240  
tttcttccat agacagggtt gtgtctttga caatcctaac tagcctcctc tcccactcag 3300  
cctaatacata atatactatt tcttctctaa cacttttcaa gatttgtaat gactccattt 3360  
atztatgttt ttattaattg tctggcccc aacacaaaag agtagagagt cagcttcata 3420  
agtacagcaa tgtctctctc tttttttcaa ctctgttccc agtgcttact gcagagcctg 3480  
ccacaaaata agtttccatg aatttcagtt aagtgaggaa ataaaagcgg catagtgacc 3540  
ttcttgggta ctgcccattc agccaatgat cttataatca agaaggactg aataccttat 3600  
tatggtttca gaaacacaaa ccttgaatca ggtacaagtc ggagtggtg gcagccagtg 3660  
tcatcctgca ctctcagccc ctgagccccg cacagcggct ggtgggctgg atcgaccaca 3720  
tctccagac tgggggagcg acgcacctca agccctatgc cttccagcag ccttggcatg 3780  
agcagtacct cattgatgtc tttgtgtttc tgctggggct cactctgggc actatgtggc 3840  
tttgtgggaa gctgctgggt gtggtggcca ggtggctgcg tggggccagg aaggtgaaga 3900  
agacatgagg ctaggtgtag ccttgggtga ggggagggca tccctggtcc tttgaaggtt 3960  
ctccccaccc cagcacacgc caccctctg ttctctctc agctccacct gccactgate 4020  
ctgcaacttg cttctttcta ttctctgcct ctgttttagaa atcttcacac accactgagg 4080  
cttcttgact tgccccttgt gacttgaaac ccagctcag atacaaattt tcacctgcca 4140  
gccctgcctc ctctttctc ctttttcta gacacaggac tctgacaact tcatcctct 4200  
tgttttagatg acttcccagt ttccagtcct catttctct tctatcactt ttcataaaaa 4260  
aactcaggaa atatttgaca tatcttccat ttcaaattct tccattttat gcagatatct 4320  
tgcccttctc ataagctctc ctcaaagctc aggaaacctg gtctgctctc ctgcatttag 4380  
ggaaggagaa cccctgccaa gacctttgct cactgcctga gaccttcc ttagagagca 4440  
cctcctttgc tggtcagaca tggagcctgc agttggtcac agatgatact gctttatttc 4500  
agtttttaca gttgccttct taagattccc gtcttataaa tggagtacag ggaacctcaa 4560  
gtagtgaagt ggaaatccat gtgtaaggct ttgtggcttc aggtaccagt ggctaaggta 4620  
gttttaaaga ctttgttgat tttagaaaaa gtccatcttc catcccctac atggcagtta 4680  
atacccttct atatggtaaa accttagaga ttaccttaat ctgctaggaa cagaagcaag 4740  
aaaaaccatg gcgtaaacac cccagagtt tttgttcatt tgtttcatct ttcttgataa 4800  
agcccgaagg tagcccatc agggtgttg tggttggtg ctccatcatg tcatcaatag 4860

cccatatctt ttctttttta tcttccttag tataacacca aactacctct ctgatagctg 4920  
gtgttcatga aatattttac cttcaaatga ttgtaccttt ttatttgctt tagagttctg 4980  
aaataaaatg aaattccact gt 5002

<210> 1530

<211> 3955

<212> DNA

<213> Homo sapiens

<400> 1530

ttatgtttgt ttgtttttga gacagggtct tgctctgtcg cccaggctgg agtgcagtgg 60  
tgtgatcttg gctcactgca atctctgcct cctgggctca agcagtcctc ctacctcagc 120  
ctccttgagt agctgagacc acagggtgtgc accatcatgc ccagctaatt tttgtatttt 180  
ttgtagagac aggggttttgc catgttgccc agactgggtct ccaactccta ggctcatgtg 240  
atcctcctgc ctcagcctgc tgggctgctg ggattacagg ctgagccacc gcaccagcca 300  
cagtgttttc tgatgaccct gaaccacggg tttattttca attcttcatt cctgtttctca 360  
ttccttaatg ctgggtgcct tcttgctgcc cattttgaac tcaactgccag tgtgtctctg 420  
ctgtcatctg atgtgcagag ctataggtgc tgcggcgaag ggtgcaggct tggagccgtt 480  
taaacaacct ggcccagcct cctcactccc tgctgacctt ggtcaaggct tcagtctcta 540  
aacctcagct ttctcatctg cagagcacag acaaaaccac ctgcctttga gctgtcttat 600  
aaagcctaaa tcaatgcgca cagcaggtag acagcaatgc ttgataaatt gttactatta 660  
ttgggtgaat tttaggtttt ttttgttgtt gttgttgttt tgagacagag tctctctgtt 720  
gtcctggctg gagcacagca gtgcgatctt ggctcactgc aacctccatc ttctgagggt 780  
caagtgattc tcgtgcccc aacctcccaag tagctgggat tacagggtgcc tgccaccaca 840  
tccagctaatt tttttttatt ttttaagtaga gatgggcttt tgccatgctt cccagctgg 900  
tcttgaactc ctggcctcaa gtgacacctc tgtctcggcc tcccaaagtg ctgggattac 960  
aggcttgagc caccgcaccc gtccagaatt ttagatTTTT ttaaaccgt gggtgaaaaa 1020  
taggctatgg ctggcttact cattgtgctt tagggaagca tgtatttgag tgaaggaaat 1080